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ANATOMY, SURGERY, AND OPHTHALMOLOGY.

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ART. I.—*Symptoms and Pathology of Gunshot Wounds in the neck of the Femur.* By D. S. YOUNG, *Surg. 21st Regt. O. V. V. I.*

GUNSHOT wounds of the neck of the femur are the most hopeless class of injuries of the extremities met with in military surgery. In ordinary simple fracture repair is most uncertain, but in the case of fracture by gunshot wound it is entirely hopeless, and if the surgeon's treatment be conservative the case will surely be lost; if radical there is but the slightest chance of success. The shock of the injury, exposure upon the field and inadequate hospital accommodations—which so often must follow—cause the unfortunate sufferer to sink in a short period of time.

Two cases of gunshot fracture of the neck occurred at the battle of Chickamauga, which presented many symptoms and conditions found in chronic disease, and probably follow in simple fracture in its earlier stages, though it is seldom possible to demonstrate this clearly in civil practice for want of post-mortem examination, the patients seldom dying at this period of the disease. Both of the above cases terminated fatally in a short time, and examination developed a similar condition produced by injury to that found in chronic disease from inflammation, and which probably exists in simple fracture. This, I think, will explain away

much of the obscurity that has surrounded the symptoms of pain in hip-joint disease, and also show why the treatment and termination of simple and gunshot fractures are so unsuccessful and fatal.

The first case, that of a man aged 20, wounded Sept. 25, 1863. The ball entered near the middle of the upper third of the thigh, outside of the femoral artery, passing directly backward, fracturing the neck of the femur and lodging in the muscular tissue behind it. The foot was everted, and the limb could be made an inch and a half shorter by upward pressure, but returned to its natural length when the pressure was removed. There was a slight fullness behind the great trochanter but not much swelling within the groin. On introducing the finger, a fractured portion of the bone, including the trochanter minor, was found drawn internally forward and upward by the iliac and psoas muscles. Upon the side next the trochanter major was a spicula of bone attached to the periosteum and capsular ligament. The finger could be inserted in the orifice made by the ball penetrating the neck within the capsule. The patient had remained nearly six hours upon the field, exposed to a chilly atmosphere after he had received the injury, and was not brought to the hospital till late at night. He was very much exhausted from the shock and exposure, was stimulated freely, and simple extension applied to the limb by adhesive plasters attached to the leg in the usual way. There was no reaction from stimulants, quinine and beef tea were administered as freely as he was able and inclined to take them. About the third day he became jaundiced, the skin and conjunctiva becoming exceedingly yellow; his bowels were opened and the kidneys stimulated without any apparent relief, the tongue becoming dry and dark colored. These symptoms were very much accelerated by the cold weather that prevailed at the time, and from which all the wounded in the hospital suffered severely, the hospital being a church, not supplied with adequate means for heating in inclement weather; we were also illy supplied with bedding. External warmth was applied and stimulants continued without any apparent relief, and he continued to sink into a languid and partially insensible condition, from which much exertion was required to rouse him. In this state he remained without material change till his death, which occurred nine days after the injury was received. The patient was a very fleshy man of lymphatic temperament, and upon post-mortem exhibited a large quantity of adipose tissue and an unusual amount of muscle for one of his organization. His bones were rather large and the joints decidedly so. The head of the femur was the largest and most symmetrical that I ever examined.

The ball penetrated the neck of the femur and was found in the

muscles behind it. It produced a transverse fracture immediately within the capsule, and also two others—one perpendicularly downward and inward, including the trochanter minor, the other running parallel to it and separating a spicula from the side of the shaft next to the great trochanter, as is shown in the drawing; and posteriorly one perpendicular fracture with a slight gouging out of the sides of the bone where the ball escaped. The soft parts were not much mutilated, and but a small amount of infiltration of blood or serum had taken place—there was no blood or secretion within the capsule; suppuration had commenced but had not caused much change in the structures about the joint. Upon opening the capsule the periosteum was found detached from the neck, except upon the posterior side where it was yet quite firmly adherent, though not as firmly as in a normal condition. The fractured surface of the upper fragment had a macerated appearance as compared with the same surface upon the shaft, in which the cancellated structure was filled with blood, both coagulated and natural; also interspersed with spots of pus. In other words, this portion of the fracture presented the appearance of undergoing the vital changes connected with repair.

But the most remarkable phenomenon in this case was the change to be observed upon the lower and front margin of the head. The cartilage at this part of its surface had undergone a degeneration or absorption which gave it a rough, corroded appearance (see *a* fig. 1), that extended about a quarter of an inch from its lower margin toward the center or ligamentum teres; it did not extend laterally, but slightly beyond that portion of the neck which the vessels permeate most numerously, and which can be seen in fig. 2. The absorption advanced more rapidly in the center than at the lateral margins, which were opposite the vascular portion of the neck. The cartilage was thinner over the whole surface of the bone than natural. Beneath it could be seen many red and dark brown specks that appeared to be blood in different states of disorganization, the same appearance that we find under the cartilage in cases of osteomyelitis.

Another point of great interest in this case is the rapidity of change in the neck and head as compared with the other structure and tissues, it shows the same change that takes place in the cartilage in inflammatory disease, and which proceeded very rapidly in this part, while in the other structure and tissues it had hardly began. The suppuration scarcely soiled the dressing, and the orifice to and from the bone was almost free from it, quite the reverse of what it is in case of chronic disease of the joint, where such a change takes place after a long period

of time; nor does it ever occur so soon in the more violent cases of acute disease. In this case traumatic injury took the place of idiopathic inflammation, the open capsule and broken neck took away the nutriment of the cartilage, which is in idiopathic cases slowly destroyed by inflammation and accompanied by effusion, suppuration and rupture of the capsule, and followed by degeneration of all the tissues around the joint. No pain was felt, because there were no confined secretions within the ligament or about the joint.

It also appears to indicate that there is more vitality than is usually presumed communicated to the head and neck by the ligamentum teres when the neck is thus fractured, and may be conveyed by the capillary vessels under the cartilage to all parts of its surface, unassisted by nutrition derived from the blood-vessels of the neck. For while we see the great change upon the margin of the head nearest the ligament, we do not find the cartilage thinner next to the ligament itself, where it could be supported by direct absorption from the ligament. But it was thicker there than at the margin opposite the vessels from which it is generally supposed most of the nutrition is derived, and if it had depended upon the vessels for support, the cartilage would most probably have been removed from the whole side of the head, and would have been thickest opposite the vascular side of the neck. The circumstance of its being changed most on the side nearest to the ligament, can be explained by the small number of vessels and capillaries there to convey nutriment to the different parts of the cartilage that had disappeared. Or if the capillaries at this portion of the neck had been as numerous as on the posterior side, the nutrition would have been equally distributed to the whole circumference, and the cartilage would have been equally sustained. If the cartilage had suffered for want of nutriment any where it would have been immediately around the ligament teres. This appears more reasonable than to suppose that the cartilage of the posterior side was sustained by any independent vitality of the vessels themselves, thus cut off from the main trunks in the cancellated structure of the femur, and it will also explain how material of repair is conveyed to the parts in which union in fracture of the neck has been said to take place.

The history and result of this case again illustrate the great difficulty nature labors under in repairing intra-capsular fracture, and gives support to the opinion of Sir Astley Cooper as to the great uncertainty of its ever taking place; it also throws great light upon the cause of the hopelessness of gunshot fracture.

The next case was that of a soldier, aged about 22, in which the ball

entered the front of the inner side of the upper third of the thigh, opposite the trochanter minor, and did not escape. When he was placed upon the table, the limb presented no shortening, but retained its natural position; on examining the wound the trochanter minor was found torn off, with the fragments still adhering to the sacro-femoral muscles and the ligament. The bone had every appearance and indication of being intact, both from position and the motion given by the hand of the surgeon. It was carefully examined by the medical men present and no fracture could be found. The length and position remained the same after the examination, but the patient had no voluntary motion of the limb, and suffered great pain when it was disturbed. I was inclined to attribute the want of motion to the destruction of the trochanter, and the consequent loss of the action of the iliac and psoas muscles, together with the fear of pain that any motion might give, instead of attributing it to a fracture of the neck. During the night the suffering became of the most excruciating character, the patient's fortitude gave way, he commenced moaning in a most pitiable manner, and neither change of position nor narcotics could quiet him. He soon gave evidence of sinking, more from suffering and nervous prostration than any other cause. Stimulants with morphia were given freely and artificial heat applied, but he continued to sink rapidly. At daylight the next morning the foot had become everted, and I thought gave by measurement a slight shortening, but so slight as to be doubtful. Pain of the most terrible character continued; he was turned at his earnest request upon the abdomen, but did not receive much or any relief, and died before noon. This man fell in the charge at Mission Ridge, and was exposed upon the field and in the ambulance several hours before he arrived at the hospital.

The post-mortem exhibited the internal trochanter gouged out, with nearly one fourth of the diameter of the femur, including that portion to which the capsular ligament is attached. Fragments of the trochanter were still attached to the capsular ligament at the insertion of the pelvic muscles. The fracture extended up the middle of the neck through its whole length, and curved outward under the outer margin of its head. The capsule of the joint was found filled with clotted blood and serum. The ball passed some distance from the ischiatic nerve which was uninjured; but the parts surrounding it were infiltrated and distended with blood or serum. There was much swelling behind the trochanter major and in the groin. The pain was in the knee and inside of the thigh, and sometimes throughout the whole limb. There was no injury to the abdominal cavity that the examination could detect.

The peculiar points of interest in this case are the great rapidity with which the patient sank and died; the severe pain by which he was tortured, and which was probably caused by the condition of the wounded part, and also the effects of the prostration caused by the long exposure on a November night. The pain caused the patient to exhibit all the signs of the most excruciating suffering of a severe neuralgia, accompanied by the expression of a serious vital depression, as if he might be suffering from a severe injury of one of the great cavities. This caused me to open the abdomen to assure myself that no ball or fragment had been deflected from its course, penetrating or wounding the organs therein contained. As no important nerve was injured in the vicinity, the suffering could not be attributed to this cause. The disease to which it bore most resemblance is morbus-coxarius, yet the pain was infinitely more severe. May not the cause of pain in both be the infiltration and distension within and around the capsule, as infiltration and distension always accompany hip-joint disease. The only way to account for the confinement of the blood in the capsule, is, that when the injury was first received, the patient may have fallen with the wounded limb in such a position as to throw the fractured edges of the bone asunder, and allow the blood to enter the cavity. When the patient was placed in a natural position, the bone resumed its proper situation and closed the opening under the fragment of the trochanter which was the only outlet from the cavity of the joint, thus causing a distension of the capsule. By this sudden accumulation severer pain was probably excited than is caused by the slower accumulation that takes place in chronic disease. Another peculiar feature of the case is that a strong man should die from prostration, caused apparently by painful nervous symptoms in so short a time.

ART. II.—*A case of Gunshot Wound of the Bladder with remarks.* By JAMES S. ATHON, M. D., *being a paper read before the Indianapolis Medical Association.*

WOUNDS of the bladder, whether incised, punctured, or the result of fire-arms projectiles, have always been regarded as formidable injuries. Indeed, when we reflect that the urine is loaded with certain elements, which though inoffensive, while confined to the tissues prepared by nature for their reception, are, when brought into contact with abraded or cut surfaces, active corroding agents, which are, in their application,

beyond the control of either the patient or physician, it is not at all surprising that wounds of the bladder are received by the profession generally as formidable injuries to medicate.

The bladder may be punctured and the secretion and excretion of the urine remain normal, though its salts may be deprived to a considerable degree of their acrimonious properties by the free use of mucilaginous drinks, yet extravasated urine, whether normal or diluted, produces extensive destructive suppuration of the injured integuments. The fœtor emanating from an abscess containing putrid urine, is offensive beyond description; it is sui generis, and when once impinged upon the olfactories will never be forgotten, and this quality may, as will readily suggest itself, serve as a diagnostic sign.

The injuries of the bladder demand prompt and decisive treatment; the severing of a large artery does not require earlier attention to save the life of the patient than do the wounds of the bladder immediate attention to prevent the terrible consequences of extravasation of urine and its infiltration into the surrounding parts, which more or less excite inflammation, and thus bring on suppuration and sloughing. Baron Larrey, Gross, and other eminent surgeons say, that gunshot wounds of the bladder are not attended with as much danger to the patient as either incised or punctured wounds. The reason for this comparative immunity is not very readily, if at all, perceived, and so far as my examination of the subject has gone, none of the writers referred to has deigned to assign any. I shall leave the question to be discussed by others, and proceed to give the history of a gunshot wound of the bladder which came under my notice recently. On the 28th day of January 1865, John B., nine years old, and his brother were snapping a pistol, which had no cap on the tube, though they knew the pistol was loaded, yet they little suspected that frequent and successive snapping might heat the tube and thus ignite the powder. John, in a playful way, ran from his brother, and at the same time presented his posteriors as a target, which was no sooner done than off went the pistol, sending an ordinary leaden pistol ball through the bladder. The ball entered along the posterior margin of the tuberosity of the right ischium, while the boy was in a stooping position, and passed into the bladder near its fundus, coming out an inch and a half or two inches above the pubes, immediately in the linea alba.

The shock of the injury almost instantly prostrated the little fellow, and he was given up as lost. The urine at once escaped, mixed with blood, from both orifices, and the fæces passed away involuntarily; however this complication seemed to be the result of the first effects of

the injury, but the discharges from the bladder imparted a distinct stercoraceous odor, though not sufficiently to enable me to say that the wound had any direct communication with the rectum.

A physician was soon by the patient's side, and after examination, pronounced the wound necessarily mortal, but gave something to ease pain, but what that something was is not known. An Eclectic physician was now called, who plunged the largest sized silver catheter into the urethra, and with vigorous efforts succeeded in thrusting the instrument, not into the bladder, but into the membranous portion of the urethra, when the screams and contortions of the patient were so piteous that he was compelled to abandon the operation. The doctor thereupon decided the patient's case beyond the skill of the profession, though he continued several days, like his predecessor, to visit the patient; when the parents succeeded in procuring one of the regular faculty, who made an examination of the wound, and then, as he told me himself, declared the patient "*in articulo mortis.*" On the tenth day from the injury I was called in to see him, and found both orifices discharging urine and pus freely, attended with an intolerable fœtor. Up to this time no urine had passed through the urethra. The patient was pale and shrunken, the pulse feeble and too quick to be correctly counted. The lower extremities were drawn up and bent upon themselves, with the right knee fixed against the opposite thigh, just about the lower third. The pain and tenderness in the pelvic region and along the course of the right limb, were so intense, that even the weight of the sheet, unless carefully adjusted, produced screaming and exhaustion. The fæces were evacuated in the bed, and removed as best they could by means of cloths and water, and thus adding to the already wretched condition of the patient by the excoriating effects of the dejections coming in contact with the nates and lower limbs. The tongue was coated with a heavy yellow fur, which was inclined to dryness. It occurred to me that if there were any chances for my patient's recovery, they must be sought for through an active, persevering and rational treatment; and although my first attention should have been directed to the immediate opening of the urethra, the weakened or depressed circulation, together with the very extensive chylopoetic derangement, and moreover, the extreme sensitiveness of the penis and appendages demanded a different course. I therefore evacuated the bowels with castor oil, and administered one grain of quinine in conjunction with one of hyosciamus every two hours, until the patient was brought under the influence of the latter article, which was indicated by abatement of pain and a disposition to sleep. I found on the third day that this treatment had procured

ease and slight tolerance of motion of the right knee. The discharge of pus and urine continued as profuse as ever from the wounds. There was no appearance of urine from the urethra, though the sensibility of of this opening was decidedly less. It seemed to me at this juncture that if anything could be done to restore the patient, that the time had arrived. The first rational indication was to direct, if possible, the urine and pus through the natural channel. In order to do this, I administered chloroform, and then introduced the smallest size catheter, which met with no obstruction until it came into the vicinity of the membranous portion of the urethra, where the Eclectic had by his ignorance and bungling, caused so much mischief eight or ten days before, when the instrument could not be introduced further without making the case worse; it was in consequence withdrawn, and the quinine and hyosciamus continued, with the addition of a hop poultice applied over the hypogastric and pubic regions. He was ordered to eat whatever he desired or whatever agreed with his stomach. The catheter was introduced every other day for a month, and every time the instrument was forced further, until it was finally made to enter the bladder without causing much pain, though every time it was introduced the chloroform had to be used. The frequent introduction of the catheter had blunted the sensibilities as well as enlarged the urethra. The urine and pus now began to escape from this orifice, which, notwithstanding the injury received in its membranous section, retained the fluid in the bladder until voided by the voluntary act of the patient. The quinine was now suspended, and the ext. hyoscyamus in grain doses, repeated three or four times a day, with the addition of a teaspoonful of the fluid extract of buchu at bed time. The soreness in the region of the pelvis soon began to subside; the discharges from the wounds gradually diminished in quantity, and in the course of a month, the orifice in front closed up. The opening in the right nates continued to discharge urine and pus for nearly two months, but in comparatively small quantities. In proportion as the pus diminished, the opening on the hip assumed a healthy appearance, and when it ceased to pass, though it was somewhat mixed with the urine that was voided through the urethra, the wound closed up and became sound. At this writing the patient is enjoying his usual health.

This case presents several interesting points for consideration:

First. It sustains the views of Larrey, Gross, and others, that gunshot wounds are not so dangerous as incised and punctured wounds.

Second. That the rectum may be punctured at the same time the bladder is perforated, and the stercoraceous matter pursue its accustomed course without escaping, to an injurious extent, into the bladder.

Third. The bladder may be punctured through and through, and yet the peritoneum remain intact.

In conclusion, the result of this case admonishes us that we should never despair in finally remedying the evils following gunshot wounds of the bladder, notwithstanding the unfavorable prognoses proclaimed in such injuries by voluminous writers. The object in reporting this case was not with any hope or expectation of presenting anything new, but to present a case that might elicit from the members of this association extended discussion.

ART. III.—*Excision of the Tongue.* By JAMES SYME, F. R. S. E., etc.

ABOUT twelve months ago I communicated a case in which the tongue had been completely removed by excision, on account of extensive disease that threatened to prove fatal by preventing the admission of nourishment. This account was necessarily limited to the operation and its immediate effects, as sufficient time had not elapsed for determining whether or no the relief afforded would prove permanent, or how far the powers of deglutition, articulation and taste would be restored. After his return home to Manchester, the patient sent me favorable reports of his progress, but certainly not such as to convey any adequate idea of the improvement that had taken place since he came under my care. He was then emaciated and bent down by long-continued suffering, unable to articulate, so as to require a slate and pencil for expressing his wishes, and swallowing even fluids with such extreme difficulty as to feel on the point of starvation. My surprise may, therefore, be imagined when on the 10th of September last he unexpectedly made his appearance, erect and vigorous, and, seeing that I did not recognize him, announcing his name in a loud, clear voice. The feeling thus excited was not lessened by learning that while traveling in the Highlands he had dined at table d'hotes, and entered into conversation without betraying the deficiency under which he labored. Very much astonished by a result so much better than could have been anticipated, I requested a number of my medical friends to join me in examining the state of matters. Professor Goodsir and Mr. Nassmyth having satisfied themselves that no vestige of the tongue remained, various observations were made with regard to articulation and other functions of the absent organ; and Mr. Annandale afterward instituted a more particular inquiry, of which he has given me the following report:

"The lips and jaw-bone, where divided, were soundly united without any deformity. The opening between the mouth and pharynx was much diminished in size and irregular in shape from contraction of the fauces and soft palates, which were drawn downward and forward more to the right than the left side, from the mucous membrane at that part having participated in the disease and been removed along with the tongue. Mr. W. says that he can swallow as well as ever, provided that the food is either finely divided or

fluid. He is also able to masticate solid substances, although difficulty is sometimes experienced from their getting into awkward parts of the mouth. In ordinary speech his words are wonderfully clear and distinct, and he can sing without difficulty. All the vowels and words composed of them are articulated perfectly, and also the following consonants: B, C, F, H, K, L, M, N, P, Q, R, V, W. D is pronounced "dthe," J "the," G like "sjee," S is a lisp. His taste is impaired, but still enables him to distinguish different articles and their respective qualities, as grouse from partridge, bitters from sweets, good beer from bad beer, etc. He has remarked that the seat of sensation lies somewhere in the throat, since there is no recognition of taste previous to the act of swallowing; and, in order to ascertain the truth of this point more precisely, the following experiments were made:

"1. A strong solution of salt was applied, by means of a camel-hair brush, to the fauces, palate, floor of the mouth, lips, and inner surface of the cheek, with the result of something being felt in the mouth, but no idea formed as to its nature.

"2. About a quarter of a teaspoonful of finely powdered sugar was placed on the floor of the mouth, and having been allowed to remain there a few seconds, was then brought thoroughly into contact with every part of the cavity without any recognition of its nature; but when a little water was added and swallowed, the taste was immediately perceived.

"3. The same experiment was repeated with another substance (salt), and with the same result."

It has long been known that large portions of the tongue may be removed without destroying or materially impairing the power of articulation, but I am not aware of any case on record in which it has remained so perfect after complete removal of the organ. Of the facts above mentioned, the one that seems most curious is the connection between taste and deglutition; from which it appears that the latter is essential for the full perception of the former. If the pleasure of taste could be perfectly gratified by mastication without deglutition, there would be no limit to the consumption of food; but the instinctive desire to swallow an agreeable morsel affords a check to any such abuse.

As the nature of the disease was not particularly described in relating the operation, a representation of the microscopic structure exhibited by the tumor (for which I am indebted to Mr. Annandale), may be given to show that it possessed the characters of epithelial cancer.

Rutland Street, Edinburgh, *January*, 1866. [*London Lancet*, Jan. 27.

In the *London Lancet*, Feb. 3, is a communication from Dr. Wm. MacCormack, of Belfast, drawn out by the above report of Professor Syme's case. He thus remarks: "During the winter of 1857, I remember seeing in the reception hall of the Imperial Academy of Medicine, a man from whom M. Ricord had excised the entire tongue some time previous. I looked into his mouth, and saw that there was not a remnant of the tongue left. He was of middle age, well nourished, and contented-looking. I was inexpressibly surprised upon hearing this man talk fluently and with perfect ease, and as far as I could detect, without any deficiency whatever in the power of articulation." G. C. B.

OBSTETRICS, DISEASES OF WOMEN, MATERIA MEDICA, AND THERAPEUTICS.

By THEOPHILUS PARVIN, M. D., Professor of Materia Medica and Therapeutics, Medical College of Ohio, and Clinical Lecturer on Diseases of Women at St. John's Hospital.

ART. I.—*Membranous Dysmenorrhœa.* By THEOPHILUS PARVIN, M. D.

Membranous dysmenorrhœa is not a rare disease, nor is it readily amenable to treatment. The term is applied to that form of painful menstruation attended with the expulsion from the uterus, during the flow, of a membrane in shreds or fragments, or entire, being a true cast of the interior of the womb. It is not a disease merely of married life; women living apart from their husbands, and the unmarried, both of unquestioned virtue, have suffered from the disease.

Dr. Tilt, in his work "ON UTERINE AND OVARIAN INFLAMMATION, London, 1862," describes the disease in his twentieth chapter under the designation *Exfoliative Internal Metritis;* he also adds a section on *Pseudo-Membranous Internal Metritis*, stating that the mucous membrane of the uterus, like any other mucous membrane, may produce pseudo-membranes which are not decidual. We propose to leave out of view, in our present consideration, this latter form of disease, for while it is not very uncommon to find pseudo-membranous formations at the os uteri, it is exceedingly rare to find them lining the uterine cavity.

More than a year prior to the publication of the volume to which we have referred, Dr. Tilt communicated to *Beale's Archives*, vol. iii, an article upon this subject under the title of *Uterine Exfoliation.* We think *uterine exfoliation* preferable to *exfoliative internal metritis*, because by the latter we at once assume that the disease is inflammatory in character, an assumption which is seldom warranted by the local symptoms, and never by the peculiar membranous product: by and by we shall refer again to this last statement.

From the profuse flowing which we have observed in the major portion of the cases we have seen, we might designate the disease *membranous menorrhagia* with almost as much propriety as *membranous dysmenorrhœa;* but the latter being most generally accepted by the profession, and expressive of two of the most obvious symptoms of the

disorder, had probably better be retained to the exclusion of all other names.

It is hardly necessary to enter into a detailed account of the symptoms of this disease. To a single point or two in this connection do we wish to refer: Dr. Graily Hewitt states that the dysmenorrhœal membrane is usually discharged within the first twenty-four hours of the menstrual flow. But in a case under our own care last summer—the patient had been suffering for years—the membrane was discharged usually on the fifth day. A similar statement has been made to me by my friend Dr. Thomas, of Covington, in reference to a case in his practice. However, the flow is often scanty until this discharge is effected, whether that shall be on the first or fifth day, or at some intermediate period, and then very often it becomes profuse, so that the condition of the patient oftentimes, between severe suffering and profuse flowing, is pitiable indeed. Nor is our sympathy diminished when we turn to most of our text-books to study the pathology and therapeutics of the disorder; contrariety of theory, still more of practice, will meet us, and by some, by Scanzoni, for example, the very unsatisfactory results derived from treatment are frankly acknowledged.

But what is this dysmenorrhœal membrane? We have reproduced from the volume of *Beale's Archives*, already referred to, some woodcuts representing a specimen of this peculiar formation.

Fig. 1.

Fig. 2.

The two figures represent a single uterine cast. From Dr. Tilt's description we copy the following: "The two fragments"—in such divided

condition the specimen was received—"when adjusted, remind one of the cavity of the womb pretty regularly distended. Each fragment is about two inches and a half in length, an inch and a half wide, and about a line in thickness. One side of these membranes has the rough and floccular appearance of the decidual membrane as it is detached from the womb, and the other side is soft, smooth, and punctuated like the inner surface of the same membrane by the openings of the uterine glands."

Twenty years ago Professor Simpson first showed that dysmenorrhœal membranes consisted of the exfoliated mucous membrane itself, and, in all respects, were identical with the newly-formed decidua except in the absence of pregnancy as the exciting cause. While Dr. Churchill in his last, the fifth, edition of "*Diseases of Women*," does not believe the evidence satisfactory, yet the researches of Lebert, Handfield Jones, Priestley, and Tilt have set the matter at rest in the judgment of most authors, confirming Professor Simpson's statement. The mucous membrane of the uterus (*Virchow's Cellular Pathology*, p. 75) is ordinarily covered with ciliated epithelium, but during pregnancy we find the layer of ciliated cylinders replaced by one of squamous epithelium. So too, in the dysmenorrhœal membrane, we sometimes find cylindrical epithelium, but oftener squamous. We give from "*Priestley on the Gravid Uterus*" two woodcuts, the one representing the glandular apertures visible on the inner surface of a dysmenorrhœal membrane, and the other a contorted glandular tubule, lined with epithelium, seen in section, looking not unlike a sweat duct.

Fig. 1.

Fig. 2.

Thus, then, we have two membranes, one physiological, the *membrana decidua* of pregnancy, the other pathological, a *membrana menstrualia*, if you please, and yet these two precisely the same in ultimate structure. It would be absurd to assert that the former was the product of internal metritis, and why not, therefore, equally so to make such assertion in reference to the latter? The proof of metritis in membranous dysmenorrhœa is neither established by the discharge, nor by any other evidence—nay, the very exfoliation itself, not known to

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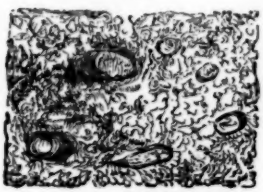
Art. II.—*Materia Medica and Therapeutics.* By Theophilus Parvin, M. D.

Is Belladonna a Lactifuge?—From McClintock's *Diseases of Women* we make the following quotation: "The external employment of tinct. of belladonna has been much praised of late for its power of promoting the absorption of the milk. In my opinion, however, its efficiency in this way is little superior to the common cere-cloth, and I speak from the experience of a considerable number of cases where I submitted it to the fairest test possible, viz: one breast of the patient was covered with the

condition the specimen was received—"when adjusted, remind one of the cavity of the womb pretty regularly distended. Each fragment is about two inches and a half in length, an inch and a half wide, and about a line in thickness. One side of these membranes has the rough and floccular appearance of the decidual membrane as it is detached from the womb, and the other side is soft, smooth, and punctuated like the inner surface of the same membrane by the openings of the uterine glands."

Twenty years ago Professor Simpson first showed that dysmenorrhœal membranes consisted of the exfoliated mucous membrane itself, and, in all respects, were identical with the newly-formed decidua except in the absence of pregnancy as the exciting cause. While Dr. Churchill in his last, the fifth, edition of "*Diseases of Women*," does not believe the evidence satisfactory, yet the researches of Lebert, Handfield Jones, Priestley, and Tilt have set the matter at rest in the judgment of most authors, confirming Professor Simpson's statement. The mucous membrane of the uterus (*Virchow's Cellular Pathology*, p. 75) is ordinarily covered with ciliated epithelium, but during pregnancy we find the layer of ciliated cylinders replaced by one of squamous epithelium. So too, in the dysmenorrhœal membrane, we sometimes find cylindrical epithelium, but oftener squamous. We give from "*Priestley on the Gravid Uterus*" two woodcuts, the one representing the glandular apertures visible on the inner surface of a dysmenorrhœal membrane, and the other a contorted glandular tubule, lined with epithelium, seen in section, looking not unlike a sweat duct.

Fig. 1.



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ordinary cere-cloth, and the other breast was well coated with the extract of belladonna. The two remedies were thus fairly tried, and in only one or two instances was there any perceptible difference in their effects. One or two of these patients thought the breast to which the belladonna had been applied, was a degree easier than its fellow which had been enveloped in cere-cloth; but this obviously might be attributable to the anodyne property of the extract."

When in Dublin, in 1864, and visiting the Lying-in-Hospital, the Master, Dr. Denham, informed me that the cere-cloth was the application always made to the breasts in case the mother did not nurse her child, and with very satisfactory results. During the winters of '64–5 and '65–6, we have in eight cases in St. John's Hospital, repeated the experiment of Dr. McClintock, that is, applied to one mammary gland the cere-cloth (the formula for this was given in the first number of the *Journal of Medicine*), and to the other the extract of belladonna. The applications were generally commenced on the second day after delivery, and renewed morning and evening. In not a single one of the patients can I say that the mammary enlargements subsided more rapidly under belladonna than under cere-cloth; and only two patients out of the eight thought the "black plaster" more soothing than the "yellow." This, confirming the larger experience of Dr. McClintock, not only disproves the alleged lactifuge properties of belladonna, but suggests the fact that occasionally the "let alone" plan is the best treatment. I am persuaded that many a mammary abscess has been caused by too much "doctoring;" let the breasts alone, so far as active interference is concerned, and the lacteal secretion, if not needed, will politely retire.

Arsenic in Hæmorrhoids.—Last summer a friend suffering with "hay-asthma," called upon me for a prescription. He likewise was a martyr to hæmorrhoids, and had been for years; in vain he had submitted to the ligature, to nitric acid, to incision and to excision—each of these relieved for a time, and then the trouble returned.

Fowler's solution was prescribed for him, with reference solely to the asthma. At the expiration of a week, there was no improvement in the difficulty for which the arsenic was administered, but there was a remarkable change for the better in the hæmorrhoids, and a further continuance of the remedy relieved him entirely. Since that time, occasional relapses have occurred, but they yielded quite well in a few days to eight drops of Fowler's solution three times a day. It is now upward of thirty years since Sir Charles Locock pointed out the value of arsenic in the treatment of *atonic menorrhagia;* and quite recently Dr. Handfield Jones (*Functional Nervous Disorders*), explains the result

by the influence arsenic exerts in producing contraction of the blood vessels. Doubtless this is the way too in which it acts upon the enlarged hæmorrhoidal vessels, although its application in the treatment of such diseased state is to me entirely novel, and the discovery purely accidental. That it does good I do not doubt for a moment; but that it should be resorted to, neglecting the condition of the intestinal canal with reference to proper secretion and evacuation, would only tend to discredit by failure what I believe will be proved to be a valuable application of an important remedy.

Bromide of Potassium in Sleeplessness consequent upon Uterine Irritation.—It is better always to try this agent before resorting to narcotics in the wakefulness which is often associated with disease of the uterus or its appendages. Indeed, in some instances it will succeed in inducing rest where the others fail, and beside, the liability of these to disturb the digestive organs, is sometimes a serious objection to their administration. Without detailing cases, I would simply state that I have recently found remarkable benefit in the condition mentioned, from the bromide of potassium—the dose should hardly be less than ten grains and may be twenty, or more.

Chlorodyne—formula for.—Chlorodyne as imported into our country and as manufactured here, does not seem to be the same preparation. It is undoubtedly a valuable agent in relieving gastric irritation, and there is beginning to be quite a demand for it by our physicians. Therefore we think it worth while to give the following extract, in reference to its composition and administration, from the first volume of "*Aitkren's Practice:*" "The composition of *chlorodyne* is variously given by chemists, but the following formula may be given as a very useful one:

℞ Chloroform, f ʒiv; æth. sulph. f ʒij; * theriacæ, f ʒi; mucilag. acaciæ, f ʒi; morph. muriat., grs. viii; acid. hydrocyanic. dil., (2 per cent), f ʒii; ol. menth. pip., gts. iv. ad. vi; *misce bene.*

Syrup or water may be added to the mucilage of gum, and tincture of cannabis Indica (5 to 20 minims), or other anodynes, may be added at the time of prescribing, if deemed desirable. The difficulty in compounding *chlorodyne* is in getting the chloroform to mix with the treacle. It will not do so alone, but the use of a little thin gum, or even water, effects their mixture almost at once. The morphia ought first to be dissolved in the chloroform; then mix with the treacle the gum or water,

* *Theriaca* is the designation in the British Pharmacopœia for *treacle* or *molasses.*

first using about the same bulk of chloroform and treacle, afterward adding the rest of the chloroform by degrees, constantly shaking briskly the bottle in which it is made up; and then add gradually the other ingredients. The dose is from five to ten minims, repeated as often as its sedative effects subside.

The effects of Iron Preparations.—It is a narrow and exceedingly unsatisfactory view of the value of ferruginous tonics, to attribute their efficacy in anæmic and chlorotic conditions of system solely to their increasing *hæmotin*. We ordinarily give in the course of a few weeks more iron than would stock two or three times over the red corpuscles of a robust man; and with benefit such quantities are administered. Dr. Pokrowsky (*Year Book, Sydenham Society*, 1862), from some observations made in the Hospital at St. Petersburg, states that under the use of iron the temperature of the body, whether previously normal or morbidly depressed, rises, and the daily amount of urea excreted in the urine is increased.

An explanation of these phenomena is given in the last number of the *British Foreign Medico-Chirurgical Review* (Jan. 1866, p. 243.) Dr. A. Sasse considers the preparations of iron to be like the blood-corpuscles, carriers of ozone, and therefore capable of replacing the corpuscles. These bodies change the oxygen taken into the blood by respiration into ozone, and the common oxygen of the atmosphere is just as useful for breathing as so much nitrogen; it must first be decomposed into the negative electric oxygen or ozone, and the positive electric oxygen, or antozone, and the former operates as an immediately oxidizing agent. The ferruginous preparations only share with the blood-corpuscles this property of changing common oxygen into ozone, of giving off this ozone to substances inclined to oxidation, and of again taking up oxygen, until all are decomposed or eliminated from the body. The iodide of potassium paper is colored blue when brought in contact with a solution of a persalt of iron, or with blood mixed with water. From this similarity in reaction, Schönbein has concluded that peroxide of iron is composed of protoxide of iron and ozone. Ferruginous preparations resemble the blood-corpuscles in this respect—that they change the positive electric antozone into ozone. Since the preparations of iron act altogether like the blood-corpuscles in relation to oxygen, ozone, and antozone, it will readily be understood that the former, when carried into the blood, may replace the loss of the corpuscles. It matters little whether the iron is taken into the blood in substance or as an oxide, or as a proto or persalt; for when it

has once entered the circulation, it continually takes up and gives off ozone, and thus becomes alternately a proto and a persalt united, unti it is expelled from the body.

Since iron increases the temperature of the blood, it stimulates the action of the heart. Thus, concludes Dr. Sasse, we have in iron a means of improving the tone of the system and promoting the process of oxidation. As this metal, therefore, favors the nutrition and the activity of the body, it is contra-indicated when the process of oxidation is too energetic, as in inflammatory diseases, or when an increased flow of blood is anticipated. In tuberculosis of the lungs Dr. Sasse states that iron should be avoided notwithstanding some recent recommendations to the contrary.

Lemon-juice in Diphtheria.—In a paper presented to the Academy of Medicine last June, Dr. Révillant contends that lemon-juice is one of the most efficacious medicines which can be applied to diphtheria, and he relates that when he was a dresser, his own life was saved by its timely application. He has noted eleven cases of entire success attained by this method of treatment. In one of his cases, which probably may be regarded as a type of the others, he prescribed as a gargle the juice of four lemons every hour, and the patient was directed to swallow a portion so as to modify the condition of the pharynx and œsophagus. The effects were to detach the diphtheritic exudation, and reduce the glandular enlargements and the swelling of the face; and in twenty-four hours after the commencement of the treatment all appearance of diphtheria was removed.—*Br. and For. Medico Chirurgical Review* (Jan. 1866), from *Journal de Médicine et de Chirurgie Pratiques.*

Hyposulphite of Soda in Diphtheria.—A writer in a late number of the *London Medical Times and Gazette*, speaks very strongly in favor of the curative virtues of the hyposulphite of soda in diphtheria; as the disease is extremely fatal under all ordinary plans of treatment, we call the attention of physicians to this new remedy, as well as the lemon-juice, hoping that those who have the opportunity will test them and report the results. In regard to the use of the hyposulphite in this disease, we need only allude to the fact that it would be in accordance with recent theories which have many advocates, but which are not yet established.

The remedy was used by the writer in doses of one to three grains for children, eight grains for adults, every four hours. A gargle is made by adding half a drachm of the salt to half a pint of water with a little glycerine; a solution for touching the throat twice daily is made of hyposulphite of soda 3iii, glycerine 3ii, and water 3vi.

BOOK NOTICES.

Bedford's Obstetrics.—We acknowledge the receipt from the publisher, Wm. Wood & Co., No. 61 Walker street, New York, of a copy of this valuable work. It bears the date of 1866, but it seems simply a reprint of the third edition which was issued in 1863. The merits of "*Bedford's Obstetrics*" are so well recognized at home and abroad, that it is needless to more than call attention to this new issue.

West on Diseases of Children.—From Rickey, Carroll & Co., Cincinnati. Here too the familiarity of the profession with the work in hand, and the universal verdict in its favor, forbid any extended notice. This is a reprint from the fifth London which was issued only last year, and now American readers can have the volume in 1866 almost as fresh as if directly from the author's hands.

No one who has visited the Great Ormond street "Hospital for Sick Children," one of the noblest charities in all London, and which owes its foundation more to the labors of Dickens, probably, than to those of any other individual, can doubt the richness of the field in which Dr. West has been laboring for the past few years. Nor can any one who has seen him there examining and prescribing, doubt the assiduity and fidelity of his investigations.

Dr. West's volume is, in our opinion, incomparably the best authority upon the maladies of children that the practitioner can consul Withal, too—a minor matter truly, but still not one that should be neglected—Dr. West's composition possesses a peculiar charm, beauty and clearness of expression, thus affording the reader much pleasure even independent of that which arises from the acquisition of valuable truths. Indeed, we are half inclined to believe that Charles Dickens, who, as his medical readers very well know, often admirably describes some diseases in their more obvious visible manifestations and characteristics, could hardly have surpassed, had he consecrated his genius to Medicine instead of Literature, Dr. Charles West in simple beauty of style, clearness of statement, and vividness of description in medical composition.

MAP

Showing the range of

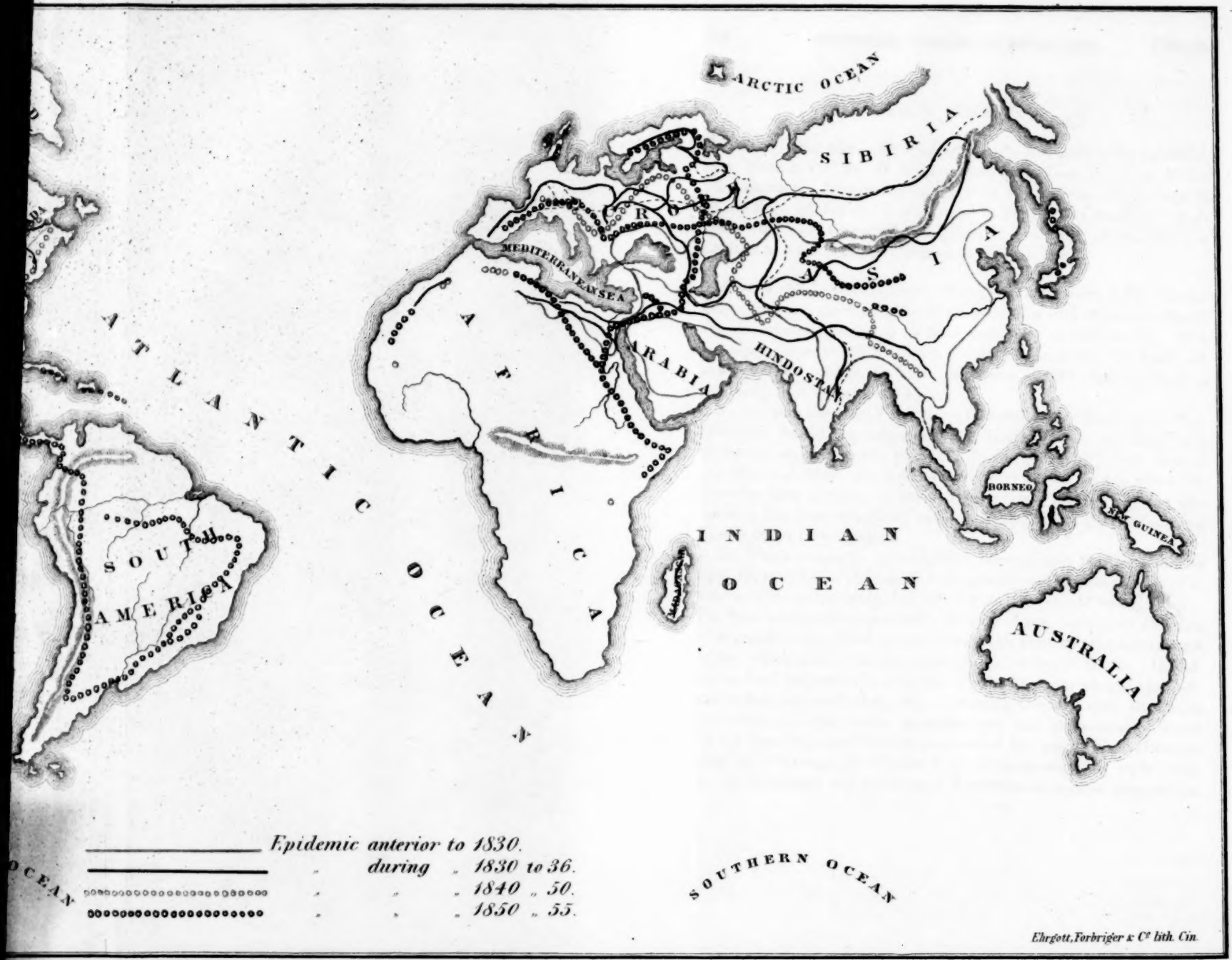
CHOLERA EPIDEMICS

by

Wm B. Fletcher, M.D.,

INDIANAPOLIS, IND.

Robert Clarke & Co. Publishers, Cincinnati, O.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„ „ „ 1850 „ 55.
Ehrgott, Forbriger & Cº lith. Cin.

PRACTICAL MEDICINE, PHYSIOLOGY AND CHEMISTRY.

By ROBERTS BARTHOLOW, M.D., Professor of Physics and Medical Chemistry in the Medical College of Ohio; Lecturer on Clinical Medicine and Physician to St. John's Hospital, etc.

ART. I.—*The History of Epidemic Cholera: Its Causes, Diagnosis, Pathology, Treatment, and the Sanitary Measures which may modify the severity of the disease.* By W. B. FLETCHER, M. D., Indianapolis, Ind.

PART II.

The cause of cholera and the modes of conveyance are questions which are as yet unsettled. Its migrations seem not to have been influenced by climate or soil—the North Pole escaped, but the icy regions of the Arctic Ocean felt its breath even in the months of February and November. The cold of December and January seemed to chill but not destroy it in Northern Russia. Generally moving along the great commercial highways, but again following more obscure routes. Sometimes moving gradually at the rate of two hundred and fifty miles per month, and then leaping the distance in a day. The wind or water carrying it at one time, and yet at another it moves opposite to both, and has prevailed with like intensity under the most varied meteorological conditions. But one point seems settled, and that is, that this traveling morbific cause, whatever it may be, can no more produce pestilence unless it meet with much filth or decomposed animal or vegetable matter—of which air that has served for respiration is one kind—than sulphur alone can produce the effects of gunpowder when not mixed with certain known proportions of niter and charcoal.

It is favored in its propagation by,

First. Accumulation and decomposition of filth;

Second. Whatever tends to lower the vital forces.

Of the former we may mention,

1. Whatever gathers filth or impedes its removal, as cesspools or imperfect drains.
2. Warmth favoring decomposition.
3. Damp or moisture (with similar effects.)
4. Hot wet seasons.
5. Low river sides and seashores, marshy levels.
6. Crowds of people in houses or ships.
7. Inclosed places without ventilation.

Of the second or latter causes which lower the vital forces are,

1. Intemperance of all kinds.
2. Debauchery.

3. Fatigue of body or mind.
4. Deficient food or long fasting.
5. Bad food, or drink, or air.
6. Depression of mind.
7. Uncomfortable dwellings.

None of these causes, alone or combined, could create cholera; but gather up and develop the epidemic influences as it passes by.

We have written this paper with the desire to develop the facts relating to this disease, and after we have examined a large field of literature on the subject, have concluded to say that no more reasonable cause can be assigned than that of malaria. The diseases prevalent before cholera are those of epidemic and bilious fevers, with diarrhœa or a state called cholerine by Magendie; this, growing more intense, becomes cholera.

Treatment.—And now as to treatment. It would be folly to transcribe to these pages a book of formulæ. Hippocrates says, "I give few or no formula, because he that knows the disease, knows what is proper to cure it." The first rule in treatment should be activity in the care of your patients and adherence to remedies, avoiding constant vacillation and changes of therapeutic means.

2. The attention should be upon retaining the heat, and keeping it up, internal and external, producing reaction; maintaining the respiration and circulation—stimulation to be decreased as heat returns.

A sketch of approved remedies and methods of treatment may not be out of place. 1*st.* How to retain the heat? It may be done by friction, by hot fluids, bottles filled with hot water, or heated bricks placed round the patient, or by a hot bath. But most of these modes are objectionable on account of the great difficulty of applying them speedily. The heating of bricks or stones is the most ready method. The hot bath is not to be advised unless the patient has a bath-tub into which he may be placed and covered; the half-dabbled wetting that most persons get, when a bath is ordered where bath-tubs are not used, is more likely to chill than comfort the patient. When unslaked lime can be had it makes a most perfect application by folding the lumps in cloths and then dipping them in water; they are placed round the patient, and by a little attention to the size of the lumps, the temperature can be governed at the will of the physician. For this suggestion I am indebted to Dr. John Kitchen, who has seen it much used in California. Mustard, frictions, and irritating liniments may be used. That "heat is life, and cold is death," is ever to be remembered in cholera, and that heat which can be applied externally without uncovering the patient or exposing him to cold draughts or wet clothing. A very good arrangement for warming the patient by hot air may be made by a few joints of stove pipe having an elbow at the first joint, as though you would set up a stove, only set the lower end of the pipe on the floor, and place the other end under the cover which must be lifted from the body of the patient by placing a chair or stool over him; then placing an alcohol lamp with large wick under the pipe we soon have a current of hot air in contact with the body. A far simpler mode is that of

lifting the clothes from the patient and placing a teacup containing half an ounce of ignited alcohol under. So much for external heat.

Internally, hot brandy or whisky may be given freely, a tablespoonful every five minutes in the cold stage with twenty drops of compound tincture of capsicum, and the same quantity of laudanum and tincture of camphor every half hour until the heat is re-established; then moderate your treatment by moderate use of stimulants at longer intervals. I believe we may depend much on chloroform, internally administered as suggested by Dr. A. P. Merrill, of New York. This may be given in doses of from thirty drops to a teaspoonful, and as often as every half hour till rest and reaction follow. Emetics are often recommended, but with the exception of a simple teaspoonful of mustard to a tumbler of water, they should as a rule be abstained from. After reaction is established opium, camphor, and quinia may be used with advantage.

Dr. Conde, in his Notes to Watson's Practice, says that he cured all his cases at Philadelphia, with ℞ opium, camphor acetate lead, each one grain. Give one pill of this dose every half hour, hour or two hours, according to symptoms. Make one dozen such pills for use.

The Phillipine Islands' Remedy.—At the moment the symptoms appear, apply friction to every part of the body, especially the bowels, with a brush dipped in brandy. Then give a cup of tea, mint or imperial, warm, with 60 drops of ether, in order to induce perspiration. Wrap the whole body up *warm*. If, at the expiration of four minutes, perspiration is not produced, take another cup of tea with 80 drops of ether, when perspiration will certainly ensue. Some persons rarely require a third cup, with 120 drops of sulphuric ether. This practice is said to be very successful in those islands.

In *Tanner's Practice* (5th London edition, p. 444), he states that mercurials in large doses, highly recommended by Dr. Ayre (who saved 360 out of 725 cases), is not to be relied upon, for other new modes of the most opposite kind have resulted as favorably. Dr. Tanner suggests that the saline treatment introduced in 1832 by Dr. Stevens, is the only one based on scientific foundation. Patients presenting the premonitory symptoms were treated with a seidlitz at once; if sinking was felt without purging, three or four teaspoonfuls of epsom salts were added to the powder. On these agents acting, plenty of thin beef tea, well salted, was given; if there was any pain a sinapism was applied to the gastric region, and thirst was relieved by seltzer, soda, or pure water *ad libitum*. Most of the cases were thus cured. If, however, cramps, coldness, or sinking of the pulse came on, the cases were considered as cholera in the second degree. The following was then administered every half hour: sodii chloridi, gr. 20; sodæ carbonatis, gr. 30; potassa chloratis, gr. 7, dissolved in water. In cases of collapse, a strong solution of the same salts should be thrown into the rectum; the patient should be removed from crowded or illy ventilated rooms.

Is epidemic cholera contagious?

While the weight of medical authority has been that this disease was not contagious, the most recent investigations have caused some to change their

opinions and many to doubt. As the matter has been recently under discussion in Boston, I can give no better view of the case than is recorded in the *Boston Medical and Surgical Journal.* My own views from particular research on this point is, that it may prove both epidemic and contagious under some unknown cause.

"Within a few days the daily newspapers have published the remarks made at that meeting by one of the oldest and most eminent physicians of this city, in which he advocated the following points of belief:

"'I. I do not believe that cholera has hitherto shown itself to be a contagious disease.

"II. I do not believe in the efficacy of quarantine or any species of non-intercourse, to avert the disease.

"'III. From our past observations, I do not believe that cholera, should it re-appear in this country, will be so likely to trouble New England as it is to visit the malarious regions of the south and west.

"'IV. I believe that the best prophylactics against this disease are strict temperance, wholesome food and clothing, uncrowded residences and lodgings, and avoidance of excesses of all kinds.

"'V. I believe that cleanliness, good drainage, and an abatement of nuisances are essential to the comfort and health of all cities. Their specific influence upon cholera may be assumed to be as great as that upon influenza, scarlet fever, smallpox and various other epidemics, but not greater.'

"With due respect for the opinions of one who has had, perhaps, a more extended opportunity of studying this disease than any other member of the society, we feel it our duty to state that the views expressed in the last paragraph are held by himself alone, so far as we know, and that we certainly consider it injudicious that they should have been published in such a manner and at a time when the whole profession has been urging upon the public authorities, already too remiss, the special and immediate necessity of sanitary reform in view of the approach of cholera.

"The same public journals contain, also, the following announcement of the opinions of the consulting physicians of the city, 'who unequivocally declare their conviction that the disease is neither contagious nor infectious; that it can not be propagated by being near the sick, nor by handling the secretions or excretions from the bodies of the sick or of the dead. The disease is epidemic, and can not be restrained or controlled in its progress by quarantines or cordons of any kind. . . . . Being thus of the opinion that neither quarantine by sea nor sanitary cordons by land have ever been found, or can be found, effectual in protecting cities or countries from the visitation of cholera, the physicians therefore recommend that no such restrictions be made, but in order to produce tranquillity in the public mind, and from respect to the opinions of those who think differently, they believe it might be well that vessels arriving from places where the disease exists should be made subject to the visitation of the port physician, but that none of the passengers or men should be in any way restrained from freely communicating with their friends on shore, or with the city, or from landing at any time with

their personal baggage and effects, and no vessel should be detained in quarantine longer than is absolutely necessary to put her in a cleanly condition.'

"To the far more important question of the disposal of a vessel and passengers arriving with the disease on board, they make no illusion. If their views concerning its non-propagation above stated are correct, both the ship and its contents should be allowed to come at once to our wharves; if, on the other hand, such a vessel may be regarded as a floating and detached portion or district of the infected city she has recently left, and there be grounds for believing that the disease may be borne in this way from country to country, or that it may in some manner be communicated by individuals or their surroundings to others, without reference to the possibility of its spontaneous origin or of its arrival in some other way or at some other time, we maintain that it is the duty of the authorities to hold such a ship at arm's length from our city, to discharge at a distance her passengers and to cleanse her as speedily as possible, to separate the sick from the well, and to prepare insulated hospital accommodations for the former. As to the further disposal of the non-affected, we do not feel competent to offer an opinion. In view, however, of certain facts connected with the present epidemic in European ports, the question seems to us one of grave importance, and worthy of mature consideration. This course we shall hold to be the only proper one, until it has been demonstrated beyond all question that such precautionary measures are of no avail, and as long as the opinions of the eminent scientific men, in countries where ample opportunity is afforded of studying the natural history of the disease, concerning contagion and quarantine, directly support it. So long as any rational doubt exists, it would be culpable to act otherwise.

"The foreign medical journals just received contain much interesting mat ter bearing upon these questions, from which we quote without comment-that it may be seen how widely the opinions of medical men in other countries, concerning the present epidemic at least, differfrom those held by the gentlemen above mentioned.

"Dr. Guerin, in the *Gazette Médicale de Paris*, says: 'Having described the amount of the evil, let us recall the methods of stopping and preventing the disease. The authorities have taken wise measures; the troops are marched out, and the barracks are aired and cleaned. This is good; but it is not enough. It ought to be made universally known that diarrhœa is the prelude to cholera, and that by treating it the developement of cholera is prevented; daily inspections should be ordered, if this has not already been done; finally, the regiments should be scattered as much as possible, and the proportion of numbers to localities diminished. The same is true as to all masses of individuals, workshops, even hospitals. Then we consider it an evil to assemble a large number of cases in one locality, such as a special ward. The hospital authorities have no doubt done well in not admitting cholera patients into wards containing others, but it is very desirable that provisional hospitals should be established round Paris, so as to spread the cases as much as possible. It has always been noticed that the mortality has

been greater in the neighborhood of large hospitals. The neighboring population would therefore gain by not having around it great centers of infection. This is why we have always protested against the system of large hospitals, against central hospitals, if not against the hospitals themselves.'"

In an article by Prince J. Zagiell, physician in Cairo, published in the *Gazette des Hôpitaux*, it is stated with reference to the question of contagion, "The morbific principles are not of the nature of a virus, but depend upon molecular miasmata diffused through the atmosphere, which poison by contact with the mucous membrane of the respiratory passages, and with the cutaneous system. Cholera is transmitted from individual to individual independently, up to a certain point of atmospheric conditions. The places where the pathogenetic principles are disengaged, are the centers which act only on the individuals within their sphere of activity, and in whom there already exists a special predisposition, accompanied by normal influences which favor the action of contagious miasm. Then, individuals once attacked by this disease, become themselves centers of infection, pouring into the atmosphere the animalcules capable of transmitting the epidemic to other individuals equally predisposed. Therefore, it is not by the contact of individuals that cholera poisons, but by altering the surrounding air which is breathed by the individuals inhabiting infected localities."

The French government, as our readers may know, has proposed an international congress to study the disease and "to propose practical measures for confining and suppressing the cholera upon its first appearance," and the London *Lancet*, in discussing the proposition, strongly urges the efficacy and economy of quarantine, and speaking of the visit of the emperor to the Paris cholera hospitals, it says further: "It may be permitted us, however, to doubt whether the urgency of the case is such as to call for this invitation to contagion, or whether the good done under existing circumstances is equal to the gravity of the risk incurred. Many a time when a general has felt an impulse to head the dashing charge, he has been arrested by the friendly voice which reminded him that his own life weighed too heavily in the scale to be risked on the chance of meeting a stray bullet; and too little is known of the means by which cholera is diffused to allow us to say that the emperor did not incur voluntarily a considerable danger in breathing the atmosphere of those wards. . . . For we repeat that the good done by the visit of the emperor can not, in our opinion, under present circumstances, weigh for a moment against the danger to the country from his voluntarily entering a focus of cholera poison."

The Constantinople correspondent of the *Medical Times and Gazette* writes as follows: "If any one should still have entertained any doubts about the contagious nature of cholera, these must have been finally dispelled by the circumstances attending the last epidemic here, which I shortly described in a previous letter, and which were almost identical with those observed during the visitation of the same disease at the time of the Crimean war. Then the French troops who came from Algeria, where the disease devastated the country, had scarcely been disembarked at Gallipolis when the cholera broke

out among the people there. From this place the disease followed the French to Varna, where it decimated the inhabitants, sparing, however, the intermediate centers of population, and more especially Constantinople, with which the French had not had any communication. At a later period a camp was formed on the hights of Maslac, the *échelon* of which was Yeni-keny, on the Bosphorus. This had scarcely been done when cholera appeared at Yeni-keny, but in no other quarter of the metropolis; it was only after some time that the disease invaded Pera, the nearest suburb to Maslac, with which the troops lodged in the camp had had frequent communication. Such observations as these are almost as convincing as physical experiments; they show the connection between cause and effect as clearly as it can be shown in pure science. That ill-fated ship which brought us cholera this season from Alexandria has added another striking proof for the assertion that cholora is indeed an eminently contagious disease. Not that the simple contact of a choleraic patient would suffice to produce cholera in another; but it is contagious in the way in which yellow fever is so. Both yellow fever and cholera have a great predilection for ships wnich are stationed in the ports where an epidemic is raging; both diseases have sometimes a long incubation; they often only break out after the vessel has left the infected place, and, the disorder having once been established on board, it clings to the unfortunate ship with the utmost tenacity. In cholera it is chiefly the alvine evacuations which propagate the disease. In this way linen which has been used by choleraic patients, houses which have been inhabited by them, ships where contamination has once taken place, may retain the contagion for a long time, and become the cause of fresh infections. Moreover, we find that the evacuations of persons suffering from the milder forms of the disease, of 'cholerine' and choleraic diarrhœa, yet contain the contagion, just as well as the excretions of those who have died of real cholera; and it may therefore be readily conceived that ships, houses, etc., may be contaminated without a single attack of real cholera having as yet taken place within their precincts." . . .

"It is well known that the period of incubation in cholera is much longer than five days, since the researches of Pettenkofer and Faye have shown that incubation generally lasts a week or two, and sometims as long as three or four weeks; and how can quarantine be expected to prove useful if the minimum duration of the period of incubation is taken as a standard? Another requirement appears to be that those who give false declarations of health should be severely punished. In the case of the *Mukbiri-Surur*, which, as you know, brought the disease to us, the captain declared that there had been no death nor any case of disease among the crew during the passage, and upon this declaration the vessel was at once freely admitted; yet on the evening of the same day twelve patients were brought from the same ship to the Marine Hospital, and the physicans at once perceived that there were eleven cases of 'cholerine' and one of algid cholera. The latter ended fatally the same night."

The account of the local epidemic at Epping, in the same journal, illus-

trates in a striking manner the importance of good drainage. Eleven persons were attacked, and eight died, from drinking water from an infected well, among whom were the physician and nurse of those originally attacked.

The same journal gives the following account of Snow's theory of the cause of cholera.

"Snow only looked upon water as the great means by which the cholera poison was distributed. He said, and he proved, that if choleraic excreta be be supplied to a community by and through the water which that community drinks, such process will prove the most determinate means of introducing cholera into the community, and that by such process great and sudden outbreaks of cholera will be secured. Acting on this thought, he actually advanced directly to the cause of the cholera during the terrible Broad-street epidemic in London, and, removing the handle of the pump by which choleraic poison was being dispensed to many hundreds of the population, he stopped the plague as if by magic. But while he held to this view of water as a means of propagating the poison, he enforced the opinion that there were other modes of transit. He put these modes into four groups. First, he held that the moist cholera excreta on the clothes and bedding of infected persons might be carried mechanically by the *vapor* of water, and might enter the nostrils and mouth in that form, and so be swallowed with the buccal secretion. It was in this way, he believed, that laundresses engaged in washing the clothes of infected persons were so readily attacked. Secondly, he maintained that the poison might dry on infected clothing, and that from such clothing, on its being unfolded or moved, the solid organic matter might escape in small substance, might be wafted a few feet in the air, and might, in fact, be absorbed through the mouth by any one exposed to it. Thirdly, in respect of nurses, persons who lay out the dead, and others in attendance, he urged that these might actually carry the poison on their hands and infect themselves by taking their food while their skin was not properly clean. In mines and dark places where many persons congregate, this, he thought, was a very common means of communication. Lastly, he concluded that the very utensils—such as basins and cups used by the sick—might convey the choleraic matter, or even the cloths on which such utensils, imperfectly washed, have been dried."

And further on it says:

"In so far as practice is concerned, the whole experience of the present epidemic has been to show that the choleraic poison, once developed, travels only in the manner suggested by Dr. Snow, and that all rational measures for the suppression of cholera rest on a correct appreciation of his theory. Thus, at Constantinople, infected articles of clothing were washed in water which afterward escaped to a drinking fountain; thus, in Paris, the disease is spreading by the aggregation of diseased with healthy persons; thus now, as in all former epidemics, it runs that those who attend most closely to the sick and wash the infected clothing die most speedily; thus it is that when the poison is introduced into or developed in towns where it can not contaminate great supplies of water, the disease is localized and limited."

Accounts from Paris to the *Medical Times and Gazette* state that:

"The hospital physicians seem to be modifying their ideas concerning contagion, as all the cholera patients are treated in separate wards. The administration has also ordered the immediate removal, cleaning, and disinfecting of the bedding used by cholera patients, as well as the washing and fumigation of the personal clothing. . . . During the last week the cholera has been on the increase in Paris, and has exceeded the formidable number of three hundred deaths per diem, reckoning private and hospital patients. While at some hospitals a diminution in the number of admissions has been observed, in others these have increased, so that the St. Antoine and La Charité now receive more than the Hotel Dieu; but it is in private practice that the increase is chiefly observed, while many of the patients who were already in the various hospitals for other complaints prior to the outbreak have fallen victims to it. The Hospital Beaujou, in the Quartier St. Honoré, is filled with patients, and the mortality is enormous, and the disease spreads in the hospitals."

It has been stated as evidence of the non-contagiousness of the affection, that physicians and hospital attendants never take the disease. We have been told by one of the physicians at the cholera hospital during the last epidemic in this city, that several of those in attendance were somewhat affected by choleraic symptoms, and the large number of deaths among medical men in Europe during the present epidemic certainly points in an opposite direction. The *Lancet* of October 28th says:

"M. Cacciaguerra, a medical student attached to the St. Antoine Hospital, of Paris, caught the disease while attending cholera patients, and died very rapidly. Several other students are lying ill, stricken by the epidemic. We learn that M. Mocquot, one of these excellent young men, has just died. The following medical practitioners have recently died at Ancona, while attending cholera patients. We find the list in the *Imparziale*, of Florence, and hope, with the editor, that the Italian government will not forget the widows and orphans. In fact, nothing less than great liberality toward the relicts and the children can be accepted by the medical body as a recognition of the heroism of these men. Drs. Jacobi, Persichelti, Stefanini, Bruscoli, Marchetti, Piccinini, Polloni, Corbisier, Pederzolli, and Bonetti."

The death from cholera of Dr. Briard, an eminent Parisian practitioner, is also announced. In England even, as yet so lightly visited, Mr. Cooper, one of the health officers of Southampton, and Mr. McNab, the medical attendant upon the cases at Epping above mentioned, have succumbed to the disease.

A general review of the whole case, then, leads us to this conclusion: that where the epidemic influence is strongly developed, infection is not likely to have any perceptible influence in propagating it, that the general march of the disease can not be dependent upon human communication, and that quarantine regulations and similar restrictions upon intercourse are therefore utterly incapable of checking its progress; and that if human communication be, in any case, the immediate agency in its transmission, it can only be so when a strong predisposition has been occasioned by epidemic influence, the

development of that epidemic influence being chiefly dependent upon those health destroying conditions, which it is the object of the sanitary reformer to remove, and thus, to use the emphatic language of Mr. Parr, in the last quarterly report of the Registrar General: "Internal sanitary arrangements, and not quarantine or sanitary lines, are the safeguards of nations against epidemic diseases. As surely says Dr. Milroy, has cholera always sought out and settled down upon the abodes of misery and filth in every city of Europe that has been visited by it, as the vulture crows in the east ever congregate where the most offal and garbage are to be found. Efficient sanitary measures, therefore, constitute all that can be done with any utility in the way of prevention."

Sanitary Measures.—Leaving the question of contagion, let us turn to the sanitary measures which we as physicians may best recommend:

1st. The duty of cities and towns. Establish—1. Sanitary survey; 2. General cleaning operations; 3. Sewerage; 4. *Abattoirs* (slaughter-houses) and markets; 5. Dram shops and drinking houses; 6. Lodging houses, cellar habitations, tenement houses, streets and construction of houses, water supply, ventilation, vaccination, public baths, and interment of the dead, and special care in case of the presence of epidemic and contagious diseases.

The subject of dram shops and drinking houses it may be thought is improperly introduced, but when we all know that, in addition to the pernicious effects of intemperance, the first and most numerous victims to epidemics are the intemperate, it will appear otherwise. Indeed, if, instead of treating and hopelessly attempting to cure and arrest intemperance and dram-selling as crimes and civil offenses, and amenable only to civil, criminal, or moral laws, we should treat the first as a disease and the second as a nuisance, and dangerous to the public health, and to be abated as such, we should, I am sure, have entered upon the right track; for instead of the prejudices of the people being excited against a sumptuary law, we should, in favor of a sanitary measure, have their entire sympathy and support.

The duties of the people themselves may be summed up in short to be: 1. To lay aside all unnecessary fears, and to feel that a danger looked full in the face will either be diminished or disappear; 2. To practice personal and household cleanliness; 3. To see that their cellars, drains, and other premises are clean and in order; 4. To avoid overcrowding and to attend to ventilation; 5. To avoid intemperance and the habitual use of spirituous drinks; 6. To avoid all decayed vegetables and decayed or unripe fruit.—*Boston Medical and Surgical Journal.*

The History of Cholera.—Interesting as is this part of our subject, it would be asking too much to detain you with a minute description of various epidemic diseases—some more or less malignant, which have approached the characteristics of cholera—we must content ourselves with a hasty review of that which is known as epidemic cholera—which for centuries lay dormant among the marshes of the Ganges—and suddenly, in August, 1817, began its march along the coast of India; having broke from its confines, it crossed the estaury the Bay of Bengal into China, as well as to the islands; it also moved

in another line, north and west, along the Persian Gulf till it reached the shore of the Caspian Sea, and across to the Black Sea it returned to its birth-place in India.

Again it sets out from its home in the Indias in 1830, and for two years it courses not only the old line of its trail, but extends itself from below the equator to the Arctic ocean, and goes as far west as the cities of Europe along the Atlantic coast, and again subsides.

From 1832 to 1836 it starts out the third time from the Ganges, passing up the Persian Gulf, along the Caspian Sea to Moscow, St. Petersburg, and over the same track in Europe and Africa, making a leap across the Atlantic, appears in Quebec on the 11th day of June, 1832; on the 22d of the same month it is in Montreal, having abated at Quebec. On the 21st of June it appeared in Albany and New York city. In Philadelphia it appeared on the 4th of July. Baltimore was touched the same month, and it did not appear in Charleston, S. C., till in November. In February it was in Mexico and Cuba, and returned to New York State, and visited, about October the same year, Chicago, St. Louis, and other cities. In Dr. Drake's *Western Journal of Medicine and Surgery*, cholera is announced in Cincinnati in September 30, 1832, and appeared simultaneously in Indiana, Kentucky and Missouri. On the American continent it extended from Canada to Yucatan. One striking feature is that South America and Australia and almost all parts south of the equator escaped up to this period. The epidemic of 1848 invaded Northern Liberia, as well as its former localities.

Cholera.—The following account of the passage of this disease across the Atlantic in 1848, is extracted from a very valuable article in the *British and Foreign Medico-Chirurgical Review* on the Geography of Epidemic Cholera, by Dr. Millroy, President of the Epidemiological Society, London, and will be read with particular interest at this time:

"It was in the last week of November, 1848, that it manifested itself, at sea, on board two emigrant vessels bound the one for New York and the other for New Orleans, when they had been out the former sixteen days, and the latter twenty-seven days, from Havre, which was unaffected at the time of their departure. The circumstances attending the nearly simultaneous appearance of the disease in two vessels traversing the Atlantic, and about a thousand miles apart, are among the most curious on record in the history of epidemic cholera. The disease did not extend beyond the limits of Staten Island hospital, at New York, after the arrival of the infected ship there; but at New Orleans it seems to have spread rapidly, not only in the hospital but in the city generally, although it did not exist at the time in any other part of the United States. . . . It appeared at Memphis toward the end of December, at St. Louis in the first week of January, 1849, and at several places on the Upper Mississippi in March. Chicago and other towns, situated on the chain of the great lakes, were effected in May. It was not till then that New York was visited by the epidemic, notwithstanding the importation of the disease at Staten Island, and the occurrence of several cases in the hospital there, six

months before. Nearly about the same time, Philadelphia, and the chief cities on the seaboard of the United States, became affected.

"Although the epidemic, so suddenly spread over Europe, North America, nearly ceased in most places during the following winter, and although the state of public health generally in our own and several other countries, which had suffered most severely, was, on the whole, favorable during 1850, yet the cholera was far from being extinct throughout this year. China, including the island of Macao, Cochin China, and various other parts of India, suffered much during the spring and early summer.

"There was a sudden and unexpected outbreak at Halberstadt, near Magdenburg, in April; and several towns in Ireland were the seat of attacks in the spring. From July to September and October it existed with varying intensity in Sweden and Norway, in Denmark and Schleswig Holstein, at Lubeck and also in several points of the Austrian dominions. About the same time it raged at Alexandria, Cairo, and especially at Suez, where its ravages were dreadful. The whole of the northern coast of Africa, from Egypt to Algiers, and probably still further in that direction seems to have been under a pestiferous cloud. At Tunis it had reappeared in the spring, and reached its acme in June; Tripoli was ravaged about a month later; Malta became affected in June and the sick continued till October. The small island of Gozo suffered in July; and in the following month Cephalonia, one of the Ionian groupe, experienced a disastrous visitation—the maritime population was reduced to famine by the rigid quarantine, which excluded them from all intercourse with Greece and with their brethren.

"In the new world, the disease continued to pass over a wide extent of North America; Halifax was affected in the autumn, New York and Washington (where the President fell a victim), suffered during the summer months; and, indeed, most of the Southern States were more or less severely visited between the months of June and August. About the same time, or rather earlier, the epidemic had spread over a great extent of Mexico. The city of that name, at an elevation of many thousand feet above the level of the sea, lost nearly 8,000 of its inhabitants; and St. Louis Potosi, Jalapa, and Vera Cruz (which appears not to have been attacked before August), also suffered greatly; California, also, it is believed, was likewise visited; and we know that Chagres and other places on the Isthmus of Panama were the seat of the disease during the autumn. When it first appeared in these parts it is impossible to say; probably in early summer, for at that time Bogota, the capital of the Caracas, and many villages along the course of the river Magdalena, as well as the town of Carthagena and Santa Martha on the coast were affected. Moreover Havana and other places in Cuba were also very sickly throughout the summer; the mortality among the slaves in many districts was appalling; in September the disease broke out on the south side of the island.

"In the first week of October occurred the earliest cases of the epidemic in the adjoining Island of Jamaica (which, as well as the other British West India Islands entirely escaped in the first visitation), where it rapidly spread with destructive fury during the remainder of the year.

In 1851 fewer parts of the earth's surface seem to have been the seat of the cholera than had been the case for some years past. In Europe the only places where, as far as I know, it existed, were some districts in Poland and in Silesia, between August and the end of the year. Breslau was, about this period, the seat of a pretty sharp attack; the disease, according to one statement, having reached that city from Bohemia, which had experienced considerable mortality in different districts.

Algeria, Oran and other adjoining localities again suffered in July and August. During the summer a severe outbreak occurred in the island of the Grand Canary, in latitude 18° 30′, off the northwest coast of Africa. No other island of the archipelago was affected. These isolated invasions are among the most interesting phenomena in the history of epidemic cholera. The origin of the disease could not be traced, suspicion fell upon a vessel which had arrived from the Havana about three weeks before, but no cases had occurred on board of her during the voyage from the West Indies. The earliest cases among the inhabitants were observed in a poor and filthy part of the town about the beginning of June; then the disease rapidly spread and occasioned a dreadful panic, followed by an enormous loss of life.

While the Grand Canary was being depopulated by the cholera, two of the Cape De Verde islands, further to the south, were ravaged by a malignant fever, which carried off, it was said, two thirds of the population of St. Vincent. The weather previously had been exceedingly stormy, and had caused the destruction of the crops, so that the people were in the greatest destitution.

There was a partial and limited reappearance of the cholera in Quebec and some other towns in Canada, also in various parts of the United States during the autumn months of this year. The pestilence continued to prevail during the spring in Cuba and Jamaica, but with diminished force; in the latter island it ceased about the beginning of summer, and was followed by an epidemic of smallpox.

1852. The disease which had broken out last year at Bussorah and other places in the south of Persia, spread to various other districts of the country during this year. Following the course of the Tigris, it reached Bagdad in the spring, and thence traversing Kurdistan, extended into Agesbijan, ravaging its capital, Tabreez, with great fury. It then seems to have followed a south-east course along the borders of the Caspian Sea, but not to have spread onward at present to the Russian frontier. The cholera in Persia was followed by the smallpox in the course of the autumn.

Many parts in Northern Russia and also in Poland suffered during the summer and autumn, but the disease seems not to have reached these countries from the east, but to have sprung up spontaneously. It broke out suddenly in Seeradz, in the government of Moscow, toward the end of May, and spread in every direction, but in the most irregular manner; sometimes concentrating itself in certain localities, and then unexpectedly appearing in places at a distance, while the intermediate were for a time untouched. In Warsaw the epidemic reached its hight in August, and lasted till the end of

September; ten thousand persons perished. The town of Kalish, on the frontier of Prussia, suffered severely in June; and Ostrowo and Plesehon, in the duchy of Posen, were attacked in July and August. Dantzig was affected soon afterward, and later still Berlin and Landsberg, together with many other places in Bradenburg and Silesia. In Petersburg the earliest cases occurred in October; the disease continued, but without much force, till the following May, when it subsided.

The almost tropical heat of the summer occasioned an unusual amount of general sickness not only on the continent, but also in this country. Although a large number (1381) of deaths from summer cholera occurred this year in England and Wales, and although, also, an annual mortality from diarrhœa had been steadily on the increase during the previous three years, there was no evidence of the genuine epidemic cholera having again manifested its presence among us. In Quebec and other places in Canada there was a slight reappearance of the disease during the autumn. The United States also, and chiefly the western provinces (in Indiana there had been a recurrence every year since 1849), were affected in the summer; various places, too, on the Isthmus of Panama and the island of Cuba continue to be the seat of the pestilence. The port of St. Jago de Cuba was attacked for the first time in September, and now the group of the Bahama islands became affected about the same time; the disease lasted there till November.

1853. There was during this year a marked increase in the diffusion and epidemic force of the cholera; there was, moreover, a great prevalence in different regions of various other zymotic diseases. (Malta was this summer the seat of a rapidly fatal fever which caused great mortality in Valetta.)

In the spring, Teheran and its environs became the scene of a most severe visitation, which reached its acme in May and June, and by which it was calculated that fifteen thousand persons out of a population of one hundred thousand perished. By the beginning of August the disease had ceased there, but it still prevailed in the eastern and southern provinces of Persia; in some places at great elevations, as at Emmernah, seven thousand feet above the level of the sea, during the same period, it continued to prevail in European Russia, as at St. Petersburg, Helsingfors, Riga, etc., in the north, also at Moscow, where this time the disease seemed to have come not from the east as on former occasions, but from the direction of Warsaw and St. Petersburg. The visitation was comparatively mild, but various places in the governments of Kier and Tola suffered severely.

Stockholm, after an immunity of nineteen years, Gothenburg, Christiana, and other places in Sweden and Norway, were attacked between July and September or October; and in many of them there was great loss of life. In Denmark, particularly in Copenhagen, it raged with extreme violence in June and July, all the inhabitants who could do so flying from the city.

In Breslau, the capital of Silesia, it had appeared early in the year, and continued during the spring and summer, but it was chiefly from July to September that the towns in the north of Prussia, such as Dantzig, Thom, Berlin, and various other places in the Baltic provinces, which had been affected

the year before, again suffered. Meanwhile the south-eastern and central districts of Europe were also affected.

In the south-eastern departments of France, too, it appeared in the autumn. While that of the Rhone was suffering severely, Lyons experienced its second visitation; this was more severe than that of 1849, although still comparatively mild for so populous a manufacturing city, for the number of attacks did not exceed one hundred out of three hundred thousand.

On the coast of Barbary the disease is known to have existed in some places, as in Tripoli, etc., from April to November.

In the New World, besides various parts of the United States, as New York and New Orleans, in both of which cities it was present toward the end of the year, there was about the same time a marked extension of the epidemic poison among the north-east group of West India Islands.

1854. This year is memorable for the extremely wide extension of epidemic cholera over Europe. From the Gulf of Bothnia to the coast of Morocco, and from the Black Sea and the Levant to our own shores, there was scarcely a land which escaped its influence. In the beginning of the year it had continued to manifest its presence in those countries near the mouth of the Danube, which were soon to become the theater of war. Both Varna and Odessa are known to have been affected in January; as the season advanced, the sickness increased in and around those towns, and over all the adjoining provinces where the Russian and Turkish forces were encamped on the opposite sides of the Danube. The French and English troops which arrived in the Dardanelles in the summer, became affected soon afterward. The vast increase of the disease in the allied armies in Bulgaria, the dreadful disaster among the French division sent to the Dobrudscha, the sickness in the fleets off Varna, and the great mortality among the troops on the shore until the sailing of the combined force for the invasion of the Crimea, together with its persistence among the troops there after the landing, are striking episodes in the history of the epidemic during this year. Northern and Central Europe had been suffering during the same period. Almost every port in the Baltic visited by the allied fleets was the seat of disease, and the fleets themselves experienced a considerable amount of sickness. At Bomersund, the troops landed there suffered a good deal. Hamburg, Holland, etc., did not escape.

All Germany was more or less affected between June or July and October. Many parts of the Austrian empire, of Saxony, Bavaria, etc., were seriously attacked during the summer and autumn, and during this season the pestilence penetrated to several places which had hitherto remained intact in all former visitations. This was the case with North Switzerland and Savoy.

Spain throughout its length and breath was visited by the disease during the year, scarcely a province escaped.

Various parts of Portugal, from the province of Minho on the north to Algrave in the south, were invaded; much choleraic diarrhœa prevailed in Lisbon during the summer, but no decided case of cholera occurred there till the following year.

Never had France suffered so fatally from the cholera as during this year. It reappeared in the spring in Paris and other parts of the empire, and continued to prevail throughout the summer and autumn with great severity. Marseilles was long a focus of the disease; the constant arrivals of large bodies of troops on their way to the seat of war in the East, served, as is always the case with numbers, for the operation of the poison. Many transports and ships of war left the port with cases of the disease on board. The entire mortality from cholera throughout the year, in France, was not less than one hundred and fifty thousand, while in 1849 it did not exceed one hundred and two thousand. Corsica was the seat of a severe outbreak during the autumn.

On the American continent numerous places which had escaped on former visitations were invaded. Newfoundland, for the first time, in August; the disease had been existing for a month or two previously in Canada and New Brunswick. Many parts of the United States and Mexico were more or less affected during the summer and autumn months.

1855. In most of the countries of Europe where the cholera had prevailed last year, it continued or reappeared with more or less severity during the present one. In St. Petersburg it seems to have become almost endemic.

Throughout Central and Southern Europe the pestilence was very widely diffused. Between the beginning of May and the end of November, Austria alone is said to have suffered a loss of two hundred thousand souls; her immense army was paralyzed in consequence. Vienna, Pesth, Prague, and other towns were most affected in June, and various places in Venetia and Lombardy were visited about the same time. The disease penetrated further into Switzerland this summer than it had yet done. In France, as well as Great Britain, the disease continued to manifest itself in a few localities, but only to a very limited extent. It was succeeded by a wide-spread and severe epidemic of influenza, which was more fatal than had been known since 1847–8.

1856. The northern provinces of India experienced a wide-spread and fatal epidemic from May to August. Nearly one hundred thousand persons are said to have perished. In Russia, for some years past, the cholera seems to have never entirely disappeared from some of the provinces of the empire. Wherever large bodies of troops had been encamped the disease was pretty sure to show itself. During the present year it was at Moscow in August, and so severely that the coronation of the Czar had to be deferred. In the same month Stockholm is known to have been affected. Numerous places in Turkey were the scenes of partial outbreaks. The southern countries of Europe suffered more than the northern. Messina experienced a revisitation in August and September. In Malta also numerous cases occurred. Many districts in Spain and Portugal were again ravaged by the disease. Cadiz and Seville suffered severely in the summer, and Lisbon in its neighborhood between July and October.

Along the entire line of the South coast of Africa, from Alexandria to beyond the Straits of Gibraltar, the disease seems to have been prevailing

during the summer months, more especially Tripoli, Tunis, Bengazi, and Mesurata in Barbary; Mogadore and Saffi, in Morocco, are mentioned as places which were affected. Nearly on the same parallel of latitude (32°) as Magora, and about four hundred miles westward, lies Madeira, where the pestilence appeared for the first time during this summer. The neighboring island of Porto Santo was also visited.

The countries and parts of the world, which to my knowledge had remained down to 1856 exempt from any visitation of the pestilence, were Australia, New Zealand, and other islands in the Pacific; the Cape of Good Hope and adjoining settlements; the east coast of Africa from the Cape as far to the northward as the Gambia, including the islands of St. Helena and Ascension; the Azores, Bermuda, Iceland, the Faroe islands, and also the Orkney and Shetland; the southern half of the eastern coast of South America from the Rio Plata, inclusive, to Cape Horn, and the whole of the western coast of the continent from the Cape and along the shores of Chili and Peru to Panama.

ART. II.—*Reports on the Extent and Nature of the materials available for the preparation of a Medical and Surgical History of the Rebellion. Circular No. 6, Surgeon General's Office.*

(Continued from February Number.)

We resume our notice of *Circular No. 6.* There are some interesting facts connected with the prevalence of disease, and some questions in pathology, which seem to justify further examination of this volume.

In the first year of the war 827,734 cases of disease came on to the sick report, of which 13,841 died. The number of cases of wounds and injuries, was only 44,886, and of deaths from this cause 4,857. In the second year 1,613,328 cases of disease occurred, and 42,010 deaths, while the number of cases of wounds and injuries was 98,475, and 10,142 deaths. The statistics thus conclusively establish what is always insisted upon by military medical writers that the life of the soldier is vastly more endangered by disease than by the casualties of battle.

Typhoid fever with a malarial element as a complication, or as Dr. Woodward prefers to style it—Typho-malarial fever—furnished the greatest mortality of any single disease. In the first two years there were 213,260 cases and 19,459 deaths. The ratio of deaths to cases was greater in the central region than in the Atlantic region, being in the former 105 54 per 1,000 cases, and in the latter 78 10 per 1,000 cases.

Diarrhœa and dysentery constituted more than one fourth of all the cases of disease reported in the first two years of the war. They amounted to the enormous number of 725,675 cases, of which 11,560 died. These terms were used loosely during the war. Dr. Woodward thinks dysentery would have been the more appropriate term; but certainly in a vast majority of cases of army diarrhœa, both parts of the intestinal tube were involved. Further on

we find, indeed, that he admits this view to be correct (p. 123) in some instances.

With regard to the treatment of this disease, experience has shown that diet and climate are the two most important elements. "The diet should be anti-scorbutic. Fresh meat and broth made from it, eggs, milk, oysters, etc., are of the greatest value; but fresh vegetables, also, exercise a favorable influence." Of the remedial agents he refers to subnitrate of bismuth, strychnine and arsenic. The first named was tried pretty extensively with very favorable results in some cases. To be effectual it should be administered in very large doses, one to four scruples once a day. Dr. Woodward sums up his conclusions as to the efficiency of this remedy in the following language: "While it must be admitted to be quite a useful remedy, especially when given in large doses, the extravagant expectations which were at first entertained with regard to it by some must be abandoned."

Strychnia, which was extensively used by some surgeons, combined with quinine or with quinine and iron, proved valuable in many atonic or paralytic conditions of the bowels, but was far from being of general availability in the treatment of severe chronic cases. Arsenic was more frequently useful, and by some surgeons this remedy was almost regarded as a specific.

Inflammatory affections of the air passages were very numerous and influential in increasing the mortality rates. During the first year they amounted to more than one half of the mean strength, but during the second not more than one quarter of the strength. The deaths were between 8 and 9 per 1,000 of mean strength for each year. Pneumonia was a very fatal disease. Thus of 31,527 cases, 7,091 died, being one in 4.4 cases.

The number of cases of venereal disease was not so large as is usual in armies. In the first two years of the war there were 39,486, being a ratio of 65.94 per 1,000.

Scurvy prevailed to a very limited extent: 5 per 1,000 of mean strength the first year and 13 for the second.

Our space will not permit the extended notice we proposed. Enough, however, has been presented to exhibit to our readers the vast extent and great value of the materials contributed to the medical and surgical history of the rebellion. It is much to be desired that the labors of the army medical staff, will be properly presented to the country.

ART. III.—*Obscure Diseases of the Brain and Mind.* By FORBES WINSLOW, M. D., D. C. L., Oxon., etc. Second American from the Third and Revised English Edition. Philadelphia, Henry C. Lea, 1866.

This is a new edition of a well known work. Of the merits of Dr. Winslow's treatise, the profession has sufficiently judged. It has taken its place in the front rank of the works upon the special department of practical medicine to which it pertains. Two large editions, the author states in his preface, have been sold within three years.

"The object of the work is to briefly, clearly, and free from all technicalities of language, point out the more important, salient, and characteristic symptoms, that usually precede and accompany serious and often fatal attacks of disease of the brain and disorder of the mind."

It is neatly printed by Henry C. Lea, and for sale by R. W. Carroll & Co.

ART. IV.—*A Treatise on the Principles and Practice of Medicine, designed for the use of Practitioners and Students of Medicine.* By AUSTIN FLINT, M. D., Professor of the Principles and Practice of Medicine in the Bellevue Hospital Medical College, and in the Long Island College Hospital; Fellow of the New York Academy of Medicine, etc. Philadelphia, Henry C. Lea, 1866.

Professor Austin Flint is so well known to the profession as an able writer and physician, that any work emanating from him will be received with gratification. The present work, consisting of 867 closely printed pages, will undoubtedly enhance his reputation for skillful book-making, if not for original research. It is an excellent compendium, and will be found as the author states in his preface, to represent fairly the existing state of the science of medicine with respect to the subjects of which it treats.

Its merits and deficiencies will appear the more conspicuous by comparison with some of the recent English works on the practice of medicine—Tanner's, Aitkens', Bennett's, etc. It more resembles the first named than either of the others. In some respects it resembles the *Handbuch der praktischen Medecin* of Lebert. It is not so elaborate as the science and practice of medicine of Dr. Aitken, but is greatly more condensed, its contents more carefully digested and its arrangement more convenient. A just comparison with the work of Dr. Bennett is scarcely possible, for the one is intended to represent the didactic and the other the clinical method.

Prof. Flint divides his subject into two parts. Part I is devoted to General Pathology or the Principles of Medicine, and Part II to Special Pathology.

The first part gives a very fair, but, of course, very condensed view of the present doctrines of pathology. Some of his opinions seem hardly tenable when judged in the light of the present state of pathological doctrines. Thus he attributes pyæmia "in a great majority of cases, to inflammation of the lining membrane of veins, or phlebitis." He admits, however (p. 85), that "the proof that the morbid condition just named is due to the presence of pus in the blood, it must be confessed, is not as complete as could be desired."

The first part is concluded by a chapter on symtomatology, etiology, diagnosis, prognosis, prophylaxis and therapeutics. These topics are discussed very briefly. He postpones to individual diseases certain measures and plans of treatment which belong to general therapeutics. Thus, he discusses under the head of acute pleuritis, the general subject of blood-letting in inflammations. This seems to us a very faulty arrangement.

Our author's views on this subject are so excellent, that we transcribe some of them for the benefit of our readers.

"A great change has taken place within the last few years, with respect to blood-letting in the treatment of acute inflammation. . . . . It can hardly be doubted that this measure was formerly adopted too indiscriminately, and often employed too largely; but, with the natural tendency to pass from one extreme to another, it may be that the utility of blood-letting in certain cases, at the present time, is not sufficiently appreciated. . . . .

"The opinion is held by some that diseases, and the human constitution, have undergone a notable change during the last quarter of a century, and that blood-letting and other antiphlogistic measures are less appropriate now, than formerly on this account. This opinion seems to me not well founded."

His classification is a very simple one: local diseases; general diseases. The local diseases are distributed into groups, corresponding to the arrangement of the different organs of the body into physiological systems. The local diseases, as a general rule, are treated of in a very able and satisfactory manner. The same remark may be made of his discussion of fevers and other general diseases, with the consideration of which the work closes.

The Practice of Medicine of Prof. Flint, is, undoubtedly, a most excellent work, and is much better suited to the special needs of the American student and practitioner than any other accessible to them. The publisher should have selected a better quality of paper. As respects typographical execution and binding, it is very creditably gotten up. We predict for the book a very great, and as we believe, well deserved popularity.

CORRESPONDENCE.

CIRCULAR NUMBER FOUR.

SURGEON GENERAL'S OFFICE,
WASHINGTON, D. C., June 19, 1865.

All medical officers of the army are cautioned against exhibiting any table, statement or paper belonging to the official records of the Medical Department, or giving any information, copy or abstract from the same, or any similar information to any person whatever, except those to whom such information should be properly tendered under existing regulations and orders, unless by the written authority of the Surgeon General.

Circulars and circular letters requesting information as to the results of observation and practice will not be replied to.

(Signed) JOS. K. BARNES,
Surgeon General.

CIRCULAR NUMBER SIX.

WAR DEPARTMENT, SURGEON GENERAL'S OFFICE,
WASHINGTON, November 1, 1865.

Reports on the extent and nature of the materials available for the preparation of a medical and surgical history of the rebellion. . . . Published for the information of the medical officers of the army.

JOSEPH K. BARNES,
Surgeon General.

We have read with some care the two Circulars, Numbers Four and Six, recently issued from the office of the Surgeon General; and, although they present certain points of antagonism, they offer, also, certain points of parallelism; such as, in our opinion, to authorize their arrangement under a common classification, and sufficient to entitle them to a joint consideration. They are both issued from the same office; both are "published for the information of the medical officers of the army." The object of the first appears to be to secure to the Medical Beureau the exclusive proprietorship of all the facts of observation and experience by the war, in its surgical and medical points of view, while the purpose of the second is, by the presentation of specimen examples, to secure from Congress the appropriations required for its more complete publication.

In relation to the latter our interpretation will not be questioned. Let us see whether we have fully comprehended the scope and intention of the former.

Circular Number Four cautions all medical officers of the army against communicating any information whatever which had been made a matter of official record, except to those to whom they were required by orders and the regulations to make such reports. They were cautioned, also, not to convey "any similar information to any person whatever," which can only be interpreted to mean that they must not communicate any facts or opinions which, although not to be found in the official records, had been derived from their experience while in the service of the United States government. Nothing could be more comprehensive. As medical men they must not speak, except according to "orders and regulations."

It is provided, however, that the application may be referred to the Surgeon General, and at his discretion, he will determine the propriety of an answer; upon which point we shall make only thris brief comment. In many instances it is known that applications for information have been thus referred, and been returned with an indorsement refusing the information, while it has not happened to us to hear of a single instance in which permission to answer was given. Circulars and circular letters, as implying a more ardent, and therefore a more dangerous zeal for the possession of "the results of observation and practice," must not receive the barren courtesy of acknowledgment. They "must not be replied to."

This circular was issued about two months after the virtual close of the war. Its purpose was not, therefore, to prevent the enemy from receiving information which might be used to our injury; nor was it designed to protect the government against the troublesome and irregular proceedings of pension agents. "Tables" or general statements of aggregate results would possess no value to this class of persons. It was not issued because of an apprehension that erroneous conclusions might be drawn from immature and fragmentary statistics, or from isolated facts. The nature of the inquiries made were often such as to make this impossible; and beside, the Bureau itself has repeatedly published imcomplete statistics, and for the purpose, as it has declared, of imparting such information as it possessed, with the understanding that future and more complete returns might modify the conclusions. Medical men are well accustomed to weigh testimony, and to estimate its value according to its source or amount. The character of the gentlemen, moreover, generally engaged in these inquiries, was to the Surgeon General a sufficient guarantee that no improper deductions would be made from the facts which they might be permitted to gather.

In many cases the inquiries were upon subjects in relation to which it was well known that the returns were complete, and the results been ascertained, and the answer could have been given by any clerk of the Bureau, without even consulting the books. The same was still more often the fact in relation to the experience of individual surgeons and individual hospitals. As for example, where the inquiry was made of the surgeon in charge of a hospital at Burlington, Vt., what had been the result of the treatment of chronic diarrhœa in that sanitarium, designed especially for that class of cases.

The wards and the records of civil hospitals have always, in all parts of the world, been open to the inspection of medical men, and no one has ever intimated that any harm to medical science came of the liberty thus given. In most of these institutions the results of experience are inspected freely, and just as the experience comes to hand, day by day, to all who apply. Imagine an order issued to the surgeons in charge, by the guardians of a civil hospital, directing that hereafter they shall impart no information to any person whatever outside of the wards; and for the reason, perhaps, that at the end of five or ten years, or any future time, the hospital proposes to analyze and publish its own records. What reasons can be employed to defend this policy in a military hospital which will not apply equally to a civil hospital?

We are informed that the opinion was entertained in the office at Washington, that the Surgeon General, as the custodian of the public medical archives, which have been gathered at the expense of the government, and which the government was preparing to publish, had no right to permit any material, however fractional and unimportant it might seem to be, to be given out for the purpose of publication, whether in medical journals or books—in fact that it has been affirmed in so many words, that public property can not be used for the advantage of "private enterprise." Private enterprise being thus regarded as in some sense the rival of government labors.

Our authority as to the statement is undoubted, but we can not believe that

the Surgeon General in the words "private enterprise" conveyed precisely his own meaning. It is not possible that he intended to place any impediment in the way of the publication of American works on military surgery, or by withholding information to lessen their intrinsic value, or to render them less able competitors of the government labors in the same direction. At the beginning of the war there was not an American book on military surgery worthy the name; and even the foreign literature of this class was confessedly far from being complete. The want of satisfactory treatises upon this subject was acknowledged by every one in the profession. Indeed, it was recognized at Washington, not only by the importation and republication of foreign treatises, but also by the encouragement given to gentlemen of the United States regular army, employed in the Medical Bureau, to publish treatises in their own names, from materials drawn from the official records while the war was still in progress, and long before the returns were completed or analyzed—while these officers were under full pay for other and actual official duties—the incomes derived from the sale of these books inuring to themselves and not to the U. S. Treasury. These private enterprises differing in no sense from the private enterprises of surgeons outside of the Bureau, except in this, that while the government, in the one instance, hired and paid the men who without restraint or limit appropriated to their own purposes its property, in the other, a very small fraction only of this property, if obtained, would have been used to enrich those poor, but equally honest people outside, who if they did not work for the government, neither had they received any pay.

In this, also, they differed from other private enterprises—that they received the indorsement of the Surgeon General as to their value and excellence, and were immediately placed upon the supply table.

But enough has been said to show conclusively that the Surgeon General did not regard with jealousy or apprehension private enterprise, and that it was intended only to secure "the private enterprise of those who are outside of this office."

In the order in which they have presented themselves to us, we have considered all the possible occasions which the Surgeon General might have had for the promulgation of this order—and by a rigid process of exclusion, we are forced to accept again the position which we at first took, namely: that its sole purpose was to secure to the Medical Bureau a complete monopoly of all the experience of the late war—with the incidental honors and profits which might in one way or another accrue from its publication. Nor do we think General Barnes has had any intention of concealing the fact, or that he will now hesitate to admit, what is so patent to every intelligent medical man, that this was his sole purpose. That the order was intended, moreover, to apply only to medical men outside of the army, who, it was well known, were at this moment seeking information at the various general hospitals, then about to be broken up.

We would like to be informed, also, to what extent at this moment information denied to America surgeons, was communicated to the medical gentle-

men who came as representatives of other governments, and to medical gentlemen residing abroad, and whose sympathies were known to be with the rebellion.

We have endeavored to state the matter as it stands fairly and fully, and upon this policy of the Medical Bureau, now directly made up and declared, we propose to take issue. We characterize the policy in the first place, as being without precedent in the history of the American Army Medical Bureau. Medical officers have not been hitherto considered at liberty to publish their reports—at least not until they had been forwarded to the office of the Surgeon General. But no orders can be found cautioning them against exhibiting their records—denying to them the right of giving any, or "similar" information—or instructing that civil communications, either in the form of letters or circulars, "must not be replied to."

Circular Number Four took, therefore, the surgeons of the regular army by surprise quite as much as it did surgeons in civil life. Veterans in the service declared the order unprecedented, and characterized it as a violation of the common courtesies of life, as understood and practiced in the profession.

Second. Without having searched the records of the world for the proof of the assertion, we believe that it may be safely said that no similar order was ever issued by the official head of the army medical staff in any other country. We believe so because it is so completely antagonistic to the spirit of our profession, that we can not doubt but that its occurrence would have been at once the subject of universal notice and animadversion.

Third. It is directly opposed to the genius and character of our political institutions. One might deem such an order possible in a despotic, or in a monarchical government even, but under a republican or democratic system—when the people themselves constitute the government, as well as pay for its administration, to refuse information to the people because it has been paid for at the expense of the state, is simply absurd. It is no part of the intention of the people to employ officers for the sole, or even chief purpose of giving them the exclusive honors or profits which might arise from the knowledge attained at the expense of the people.

Fourth. It has no precedent in any other department of the United States government relating to the war. Excepting when military exigencies demanded the suppression of information, it has always been given freely. In most other matters there has been very little need of inquiry. Reporters and letter writers have kept the public pretty well informed all along as to what was transpiring on the field and at Washington. Generals and colonels have in numerous instances been permitted to publish their reports of battles in the daily papers, and in the form of books to describe minutely entire campaigns, aided by papers and illustrated with maps taken from the various bureaus in Washington. Courts of inquiry, senate and house committees, and, finally, the committee established at the very opening of the rebellion, "On the Conduct of the War," have left little or nothing to be learned from the archives; and yet no "Caution" has been issued from the quartermas-

ter's office, the commissary general's office, or from any other than the medical, denying to citizens all information.

Is it understood that a gentleman and a citizen of the United States, desiring information at any of the other offices, in order that he may complete a history of the rebellion, will be denied access to the archives and refused all information? And yet with how much more reason ought the experience of the medical officers be laid open freely to the public? From the beginning to the close of the war their works have progressed silently; with very few exceptions the public has heard nothing of what they have achieved. The entire medical profession, both within and without the army, has waited anxiously but patiently for the doors to be unlocked; and when, at the close of the war—too late, alas, to accomplish any good for those who have died, but not perhaps too late for the maimed and perishing survivors—when with a well-founded doubt as to whether five years more might not elapse before the doors of the bureau would be opened—with a knowledge that some unforseen casualty might destroy in one hour every page of the record; when at last, we say, they hastened to the hospitals, and as humble gleaners asked for a few grains of those vast stores of experience which the bureau now informs us are "simply enormous," they were arrogantly told by the keeper of the gates that these fields were the property of the government, and that not a straw must be gathered into their bundles. Nay, they must not even be permitted to look upon the fat sheaves within the inclosure. Official sentinels must warn them off and refuse to parley with them.

Fifth. It is in open violation of the spirit and written ethics of our profession. Medicine is a liberal and humane science, and it disciples, with a magnanimity which has never failed to command the admiration of the world, have at all times, from the earliest period of its cultivation, declared that its treasures were open and free to all. This has been the sacred ancestral heir loom which has descended in the line of inheritance from our fathers, and which we have always most carefully sought to preserve. Refusal or even hesitation on the part of a member of our profession to communicate to another information which it is believed might assuage one pang of human suffering, is accounted a crime, and secures to the offender perpetual exclusion from our ranks. We are bound by a pledge of honor never thereafter to recognize the offender as a professional brother. By this test more than any other, we distinguish the real physician from the empiric. True medical science is liberal and catholic. Empiricism is selfish, and locks up its doubtful wares under patents, monopolies, and mystery.

Last. The policy is inhuman and a long step backward toward barbarism. This is its relation to the world at large, and the conclusion is a mercenary corollary from the premises and argument already made. Statesmen, politicians, and men of business may not see the legitimacy of this inference; but the *father* will comprehend our meaning when the son, wasted with camp fever, looks to him for succor. In the breast of the humane surgeon in charge at Burlington—within the office of the surgeon general at Washington there lies a secret, the knowledge of which will insure his recovery, but

it is the property of the government, and the time has not yet arrived for the government to disclose its secrets, nor will it arrive until for him, at least, it is too late.

There are some who will understand this argument, and who will fail to be convinced by any official sophistry, that medical or surgical knowledge can ever be withheld for good and honest purposes. Those who do not accept of our argument nor of its conclusions, will recognize the policy of the Medical Bureau as both wise and humane, and will desire to see this policy hereafter more fully established and carried out upon the precedent established by Circular No. 4. *

MISCELLANY.

Annual Commencement of the Medical College of Ohio.

The forty-fifth session of this well known school of medicine terminated on the 1st of March with the largest graduating class ever sent forth from the institution. The valedictory to the class was delivered in a happy and effectual manner by Professor Gobrecht. Hon. Flamen Ball conferred the degree upon the following named gentlemen, and afterward made an excellent address:

Joseph Aub, Ohio, Carbonic Acid in Respiration; F. A. Avard, Kentucky, Stomach; D. M. Bagby, Kentucky, Pneumonia; C. W. Burket, Indiana, Urea; J. C. Calderwood, Indiana, Typhoid Fever; Andrew M. Cook, Ohio, Pneumonia; Albert G. Craig, Kentucky, Apoplexy; John M. Craig, Indiana, Remittent Fever; Samuel T. Cull, Kentucky, Scarlatina; John H. Curry, Ohio, Scarlatina; Asa W. Daniels, Minnesota, Diphtheria; Isaac S. Earhart, Indiana, Treatment of Inflammation; Thomas Eagleson, Ohio, Fœtal Circulation; John F. Ellis, Kentucky, Typhoid Fever; Samuel Ellis, Kentucky, Cholera Infantum; Gilbert A. Ewing, Ohio, Epidemic Cholera; J. S. Farris, Indiana, Spotted Fever; John T. Floyd, Ind., Valvular Disease of the Heart; Hugh S. Fullerton, Ohio, Relations of Mind and Body; E. S. Galbraith, Ind., Rubeola; John Gordon, Tenn., Remittent Fever; Alexander Guthrie, West. Virginia, Chronic Valvular Disease of the Heart; Geo. W. Haile, Indiana, Cathartics; Pennel F. Harrod, Indiana, Purpura; Zach. H. Hauser, Indiana, Scarlatina; K. Du Bois Hawley, Indiana, Malaria; H. M. Hittner, Tennessee, Physiology; Wm. F. Hoadly, Indiana, Puerperal Fever; Daniel C. Jones, Illinois, Hospital Gangrene; Isaac N. Jones, Ohio, Functions of the Stomach and Intestines; Levi M. Jones, Ohio, Acute Pneumonia; James A. Judkins, Ohio, Circulation of the Blood; S. H. Kaighn, Virginia, Man viewed from a Medical Stand-point; Andrew J. Langford, Kentucky, Typhoid Fever; W. A.

Lindsay, Kentucky, Dentition and its Disorders; M. Meredith, Indiana, Typhoid Fever; Robert McCall, Ohio, Uterine Hemorrhage; W. McMillen, Ohio, A case of Eclampsia; H. R. Moore, Ohio, Different forms of Death; John L. Neilson, Ohio, Secondary Diseases of Amputated Limbs; Geo. C. Ogden, Ohio, Lead; Samuel Pangburn, Ohio, Treatment of Cholera; John N. Parr, Indiana, Dyspepsia; A. W. Patterson, Indiana, Chloroform; James N. Paul, Iowa, Treatment of Pneumonia; David C. Peters, Ohio, Placenta Prævia; John Pfenninger, Missouri, Carbon; Richard B. Potter, Ohio, Cholera; John P. Richardson, Ohio, Pathology of Capillary Hemorrhage; J. D. W. Roberts, Ohio, Anatomy and Physiology of the Skin; Geo. Rowland, Indiana, Chemical and Vital Properties of the Blood; Wm. E. Scobey, Ohio, Pneumonia; Anderson T. Speer, Ohio, Cerebro-Spinal Meningitis; J. D. Staebler, Ohio, Amenorrhœa; Henry G. Steely, Ohio, Typhoid Fever; Joseph A. Stilwell, Indiana, Pernicious Fever; Richard Taylor, Kentucky, Pleurisy; Reuben R. Tidrick, Indiana, Etiology; Albert Toon, Kentucky, Indigestion and Dyspepsia; A. M. Vickery, Indiana, Diphtheria; Geo. W. Westlake, Pennsylvania, Acute Dysentery; Milo A. Wilson, Ohio, Epilepsy; J. S. Wise, Kentucky; J. P. Woodward, Ohio, Professional Man *v.* Quack; Warren R. Woodward, Ohio, Typhoid Fever; Geo. Swing Zugg, Ohio, Pathology of Inflammation.

The number of graduates from each institution in this city may thus be stated—we publish them in order according to the charge of tuition:

Miami Medical College, no charge for professors' tickets, twenty-six.

Cincinnati College of Medicine and Surgery, tuition $40, fourteen.

Medical College of Ohio, tuition $70, sixty-seven.

Speaking of charges for tuition reminds us that all of the schools in New York and Philadelphia have decided to increase their rates from $105 to $140. They have addressed a circular to every college in the country, earnestly soliciting co-operation in this matter. We await with much interest the action of many of our Western schools. The issuing of this circular shows that this whole subject can not now escape a full discussion at the approaching meeting of the National Association.

Medical Education in France and England.

The propriety of instituting changes in the system of medical education is under discussion in France. By some persons the separation of the examining from the teaching body is urged. The little attention paid to the lectures of the professors of the faculty, and the eagerness with which students follow the courses given at the Ecole Pratique, are much insisted on. Many arguments of less relevancy are urged. We shall shortly recur to the arguments as authoritatively stated, but, meantime, it is interesting to notice that even in France, where that terrible abuse of lectures, which is the bane of our English system, is of far less proportion than here; the preference for practical teaching is avowed. Here the students are lectured to death, and taught very little. The lecture-room is frequently a chamber of torture, comparatively rarely a place of instruction. As examinations become more stringent

the number of pupils plucked becomes greater. The most efficient examination here is that of the University of London. It is by no means above that of the University of Paris. Yet only the *élite* of our students venture to encounter it, and of these a very large proportion are plucked. The reason must be sought in the absurd system which requires only "attendance at lectures, which makes no provision for frequent examinations, and which encourages the least efficient plan of teaching—that by professors who read addresses of an hour long. No other science is taught in the same manner, and when lately the Archbishop of York—one of the most experienced of university teachers—examined our system of medical education in the address which he delivered at St. Mary's Hospital Medical School, he unhesitatingly pronounced a condemnation of this part of it which we heartily hope will yet produce its effect. The recent circular of the senate of the University of London points to precisely similar conclusions. Students listen to words, and acquire a knowledge of words; but they are not led to examine the objects and to perform the experiments of science; and so they can write botanical and zoological and physiological treatises, but can not dissect a flower or recognize common types of bones, and have a purely book knowledge of their subjects. It is only by tutorial and demonstrative teaching that a useful knowledge of science can be conveyed. The improvement in clinical teaching is the one good feature of our schools; they have yet to make great changes in order to bring their educational system up to a high practical standard.—*London Lancet*, Jan. 27.

The good common sense contained in the above editorial must commend itself to every member of our profession. It needs no Archbishop of York to discover the absurdity of the present lecturing system, and yet there are some so wedded to ancient customs that they can not be made to understand how knowledge can be acquired, except by the good old paths which their fathers trod. They seem to overlook or ignore the fact that at the present day valuable treatises in every department of the healing art so abound that they are accessible to students of the most humble means, and that if the system of teaching could be so modified as to compel the student thoroughly to digest these works under the guidance of a competent tutor, and more time be devoted to clinical and less to didactic lectures, far better would it be for the profession and those committed to its care. How true it is "that students are lectured to death, and taught very little!" Now that the older colleges at the East have commenced a reform, it is to be hoped that they will not limit it simply to the matter of increasing the price of tuition, but that they may devise some plan by which medical education shall become more thorough and practical. G. C. B.

Death of Professor Brande, F. R. S.

The London *Lancet* of February 17th announces the death of this well known chemist, at the age of eighty. His "*Manual of Chemistry*," "*Outlines of Geology*," and "*Dictionary of Science and Art*," have had an extended circulation even in this country.

William Mount, M. D.

Many of our readers have already learned the sad news of the death of this excellent physician. He was in the 67th year of his age, and the following letter from Prof. Gross, addressed to the surgical editor of this *Journal*, and which we are permitted to publish, gives the full particulars of the accident which led to the fatal result:

Philadelphia, Feb. 17, 1866.

My Dear Doctor:

You have, ere this, been informed of the sad fate of poor Dr. Mount. He was at my lecture at the college yesterday morning, apparently in high glee, and in the most perfect health. He left me at the end of the hour, promising to dine with me to-day. He afterward attended the lecture of Professor Rand, and also that of Professor Pancoast. In the evening he went out to examine some newly-invented lamps, and in crossing one of our streets was knocked down by a one horse wagon going at a rapid rate, certainly unnoticed by him at the moment. The end of one of the shafts struck against the posterior and lateral part of the skull, on the right side, fracturing the base of the cranium and causing instantaneous insensibility from concussion and compression of the brain. Some policemen close by, carried him to the nearest station-house, from which he was afterward removed to the Girard House, his place of lodging. When I saw him with my colleague, Professor Pancoast, about an hour and a half after the sad accident, we soon found that he was hopelessly injured. Blood and cerebral matter were issuing from the ear, the pupils were widely dilated and insensible to light, the pulse was sixty in the minute, and the respiration short and greatly embarrassed. He expired about three o'clock this morning, without any apparent effort at reaction. Mrs. Mount was with him up to the time of his death.

I had known Dr. Mount for nearly a third of a century, and although never intimate with him, always found him to be a true man, perfectly reliable in everything he said and did. He was a Trustee of the Medical Department of the Cincinnati College during the brief but checkered and brilliant existence of that institution, and at the time of his death, if I mistake not, Trustee of the Medical College of Ohio.

I have given you the above particulars of his death in the belief that, as he was one of your devoted friends and admirers, they would be interesting to you. I am, dear Doctor, very truly your friend,

Professor Blackman. S. D. Gross.

Dr. Mount was emphatically the friend of the poor, and the community in which he resided mourn the loss of the good and skillful physician who had served them so faithfully for nearly thirty years. Dr. Mount for a few years was Superintendent of the County Lunatic Asylum, and was the oldest member of the Board of Trustees of the Medical College of Ohio. The following resolutions were adopted at a joint meeting of the Trustees and Faculty of the College:

The Chair having announced to the meeting the recent death of Dr. Wm. Mount, one of the alumni of this college of the class of 1826, and for many

years last past a member of the Board of Trustees, on motion of Israel S. Dodge, M. D., it was unanimously

Resolved, That we deeply sympathize with the widow and family of the deceased in their sudden and painful bereavement.

Resolved, That we who knew the late Dr. Mount so well and for so many years, cheerfully bear testimony to his diligence in the performance of all his official duties, and to his sincere devotion to education, and particularly to the advancement of the cause of medical science.

Resolved, In the death of Dr. Mount this college, as well as the sick and suffering, have lost a faithful friend and an able adviser.

Resolved, That the proceedings of this meeting attested by the President and Secretary, be forwarded to the widow of the deceased, and that the same be published in the papers of this city, and in the Cincinnati *Journal of Medicine*.

A. R. Dutton, Secretary. F. Ball, President.

Surgical Malpractice.

The numerous vexatious trials to which the profession is subjected for alleged malpractice, render it necessary to furnish both the medical and the legal profession with a more complete collection and digest of cases than have yet been published. To meet this pressing want, the surgical editor of this Journal, aided by the Hon. Stanley Matthews, has undertaken the preparation of such a volume. Having been called upon to testify as an expert in a large number of cases, he has the materials for such a work so far advanced, that the publishers, Robert Clarke & Co., will have it ready early in the fall.

Cincinnati Academy of Medicine.—The annual election of officers resulted in the choice of the following gentlemen: *For President*, Dr. Thos. Carroll; *Vice President*, Dr. Chas. Woodward; *Secretary*, Dr. Graff; *Treasurer*, Dr. W. H. Taylor; *Librarian*, Dr. W. P. Thornton.

The *London Times and Gazette*, accuses us of borrowing our device and motto from one of their correspondents without acknowledgment. They were copied from the last London Edition of Druitt's Surgery, and should have been credited to this source.

Resident Students at St. John's Hospital, Cincinnati, Ohio.

Six resident students will be received into St. John's Hospital on the payment of the fee of $50 for the year. They will be entitled to the clinical instruction of the institution, and will be under the direction of the medical tnd surgical staff of the hospital. The payment of this fee will not entitle them to board.

Application may be made to Sister Anthony, sister superior, or to any member of the attending staff.

The pressure of original matter offering compels us to defer the publication of our Statistical Paper on Amussat's Operation until the May number.

G. C. B.